About This Document

This document contains instructions for DVR configuration and operation.

Package Contents

The package contains the following:

- Digital Video Recorder
- Power Adaptor and Power Cord
- Quick User Guide (This Document)
- Software CD (User's Manual included)
- Infrared Remote Control

Notice

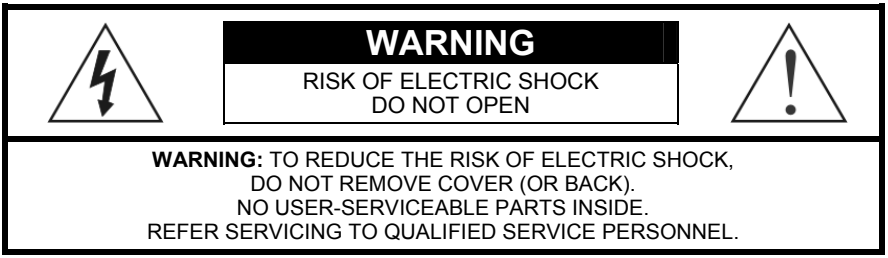
Specifications are subject to change without prior notice.

The information contained herein is to be considered for reference only.

The software included in this product contains some Open Sources. You may obtain the complete corresponding source code from us. See the Open Source Guide on the software CD (*OpenSourceGuide\OpenSourceGuide.pdf*).

This user guide covers the 4- and 8-channel digital video recorders. The DVRs are identical except for the number of cameras and alarms that can be connected and the number of cameras that can be displayed. For simplicity, the illustrations and descriptions in this document refer to the 8-camera model.

Warning



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. Placement and 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.
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.
Do not place this equipment on a closed space. Sufficient amount of ventilation air is necessary to avoid increase of ambient temperature which can cause improper operation or the risk of fire.

7. 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.

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

9. 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.

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

11. 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.

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

13. 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.

14. 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.

15. 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.

16. Field Installation

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

17. Correct Batteries

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

18. 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.

Disposal

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.

Specifications

Video

Signal Format	NTSC or PAL (Auto Detect)
Video Input	Composite: 4/8 inputs, 1 Vp-p, auto-terminating, 75 Ohms
Monitor Outputs	HDMI: 1 HDMI VGA: 1
Video Resolution	HDMI: 1920x1080, 1440x900, 1280x1024 VGA: 1920x1080, 1440x900, 1280x1024
Record Speed	Real-time: 240ips (NTSC), 200ips (PAL) @ D1 (8-ch Model) 240ips (NTSC), 200ips (PAL) @ 960H, Basic Quality* (8-ch Model) 120ips (NTSC), 100ips (PAL) @ D1 (4-ch Model) 120ips (NTSC), 100ips (PAL) @ 960H, Basic Quality* (4-ch Model)
Playback Speed	Full Duplex: 240ips (NTSC), 200ips (PAL) @ CIF (8-ch Model) 120ips (NTSC), 100ips (PAL) @ D1 (4-ch Model)

* Maximum recording speed will decrease about 30% with Standard or more image quality.

Inputs/Outputs

Alarm Input	4/8 terminal, programmable as NC or NO, 2.4V (NC) or 0.3V (NO) threshold, 5VDC
Alarm Output	1 relay output, terminal blocks, 1A@30VDC (NO)
Internal Buzzer	78dB at 10cm
Network Connectivity	10/100Mbps, 1Gbps Ethernet (RJ-45)
Audio Input	RCA Input: 4 Line In
Audio Output	RCA Output: 1, Line Out
Text Input	POS Interface, ATM Interface

Connectors

Video Input	Composite: 4/8 BNC
Monitor Output	HDMI: 1 HDMI VGA: 1 VGA
Audio In	4 RCA connector
Audio Out	1 RCA connector
Alarm Input/Output	Terminal Blocks
Ethernet Port	RJ-45
RS232 Serial Port	Two-connector terminal block
RS485 Serial Port	Two-connector terminal block
IR Port	1 Remote Control
USB Port	2 (USB 2.0)

Storage

Primary Storage	SATA hard disk drive
Secondary Storage	USB hard disk drive or flash drive

General

Dimensions	10.4" (W) x 2.0" (H) x 7.5" (D) (265mm x 52mm x 191mm)
Unit Weight*	3.53 lbs. (1.6kg)
Shipping Weight*	6.06 lbs. (2.75kg)
Shipping Dimensions	14.0" (W) x 4.1" (H) x 13.4" (D) (355mm x 103mm x 340mm)
Operating Temperature	41°F to 104°F (5°C to 40°C)
Operating Humidity	0% to 90%
Power	Adaptor: input – 100-240V~, 50/60Hz, 1.5A, output – 12V⎓, 5A
Power Consumption**	12V⎓, 1.1A, 13.2W
Approvals	FCC, CE

* When one hard disk drive of 1TB is installed, the value was measured.
** When one hard disk drive of 2TB is installed, the value was measured.

Table of Contents

Installation 7
- Video Input 7
- Audio In/Out 7
- Alarm Input/Output 7
- Factory Reset Switch 8
- Video Out 8
- Network Port 8
- RS232 Port 8
- RS485 Port 8
- Power Cord Connector 9

Configuration 9
- Front Panel Buttons and LEDs 9
- IR Remote Control 11
- Turning on the Power 12
- Shutting down the System 12
- Initial Unit Setup 13
- Setup Wizard 14

Operation 17
- Live Monitoring 17
- Searching Video 18

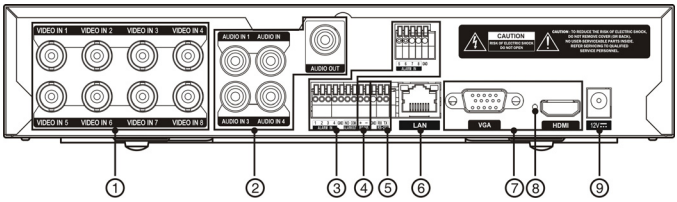
Remote Program 20
- WebGuard 20
- iRAS 21
- RAS Mobile 21

Installation

No special tools are required to install the DVR. Refer to the installation manuals for the other items that make up part of your system.

Your DVR can be used with either NTSC or PAL equipment.

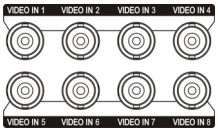
NOTE: You cannot mix NTSC and PAL equipment. For example you cannot use a PAL camera and an NTSC monitor.



< 8-Channel DVR rear panel >

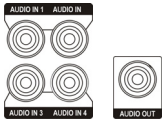
① Video Input ② Audio In/Out ③ Alarm Input/Output
④ RS485 Port ⑤ RS232 Port ⑥ Network Port
⑦ Video Out ⑧ Factory Reset Switch ⑨ Power Cord Connector

Video Input



Connect the coaxial cables from the video sources to the BNC Video In connectors.

Audio In/Out



Your DVR can record audio from up to four sources. Connect the audio sources to Audio In 1, Audio In 2, Audio In 3 and Audio In 4 as needed using RCA jacks. Connect Audio Out to your amplifier.

NOTE: It is the user's responsibility to determine if local laws and regulations permit recording audio. The DVR does not have amplified audio output, so you will need a speaker with an amplifier. The DVR does not have a pre-amplifier for audio input, so the audio input should be from an amplified source, not directly from a microphone.

Alarm Input/Output

NOTE: To make connections on the Alarm Connector Strip, press and hold the button and insert the wire in the hole below the button. After releasing the button, tug gently on the wire to make certain it is connected. To disconnect a wire, press and hold the button above the wire and pull out the wire.

Alarm In 1 to 8: You can use external devices to signal the DVR to react to events. Mechanical or electrical switches can be wired to the Alarm In and GND (Ground) connectors. The threshold voltage of electrical switches for NC (Normally Closed) is above 2.4V and for NO (Normally Open) is below 0.3V, and should be stable at least 0.5 seconds to be detected. The voltage range of alarm input is from 0V to 5V.

GND (Ground): Connect the ground side of the Alarm input and/or alarm output to the GND connector.

NOTE: All the connectors marked GND are common.

NO (Normally Open): Connect the device to the COM and NO (Normally Open) connector. NO is a relay output which sinks 1A@30VDC.

RS485 Port

The DVR can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 half-duplex serial communications signals. The RS485 connector can also be used to control PTZ (pan, tilt, zoom) cameras. Connect RX+/TX+ and RX-/TX- of the control system to the + and – (respectively) of the DVR.

RS232 Port

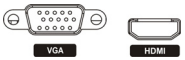
An RS232 port is provided to connect remote control devices such as a control keyboard. PTZ cameras or text-in devices can also be connected to the RS232 port.

Network Port

The DVR can be networked using the 10Mb/100Mb/1Gb Ethernet connector. Connect a Cat5 cable with an RJ-45 jack to the DVR connector. The DVR can be networked with a computer for remote monitoring, searching, configuration and software upgrades.

CAUTION: The network connector is not designed to be connected directly with cable or wire intended for outdoor use.

Video Out



NOTE: Connect the monitor before the DVR boots so that video can be displayed on the monitor with the resolution you have set during system setup. If you want to use both the HDMI and VGA Monitor connectors, one of the monitors should be connected before the DVR boots, and the other monitor should be connected after the DVR boots.

A VGA connector is provided so that you can use a standard, multi-sync computer monitor as your main monitor. Use the cable supplied with your monitor to connect it to the DVR.

An HDMI (High-Definition Multimedia Interface) connector is provided so that you can use an HDMI monitor as your main monitor.

Factory Reset Switch

The DVR has a Factory Reset switch to the left of the HDMI connector on the rear panel. This switch will only be used on the rare occasions that you want to return all the settings to the original factory settings.

CAUTION: When using the *Factory Reset*, you will lose any settings you have saved.

To reset the unit, you will need a straightened paperclip:

1. Turn the DVR off.
2. Turn it on again.
3. While the DVR is initializing, the front panel LEDs will blink. When the front panel LEDs blink, poke the straightened paperclip into the unlabeled hole to the left of the HDMI connector.
4. Hold the switch until the DVR's internal buzzer sounds twice.
5. Release the reset switch. All of the DVR's settings are now at the original settings it had when it left the factory.

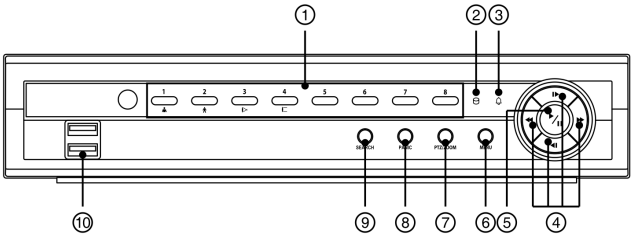
Power Cord Connector

Connect the connector of the adaptor to the DVR, and connect the AC power cord to the adaptor and then to the wall outlet.

WARNING: ROUTE POWER CORDS SO THAT THEY ARE NOT A TRIPPING HAZARD. MAKE CERTAIN THE POWER CORD WILL NOT BE PINCHED OR ABRADED BY FURNITURE. DO NOT INSTALL POWER CORDS UNDER RUGS OR CARPET. THE POWER CORD HAS A GROUNDING PIN. IF YOUR POWER OUTLET DOES NOT HAVE A GROUNDING PIN RECEPTACLE, DO NOT MODIFY THE PLUG. DO NOT OVERLOAD THE CIRCUIT BY PLUGGING TOO MANY DEVICES IN TO ONE CIRCUIT.

Configuration

Front Panel Buttons and LEDs



< 8-Channel DVR front panel >

① Camera Buttons	② HDD LED	③ Alarm LED	④ Arrow Buttons
⑤ Play/Pause Button	⑥ Menu Button	⑦ PTZ/Zoom Button	⑧ Panic Button
⑨ Search Button	⑩ USB Connector		

NOTE: A separate Alarm button on the front panel is not provided. Pressing any button on the front panel resets alarm output including the internal buzzer when the alarm is activated. However, when you are in the menu or PTZ mode, you have to exit the menu or PTZ mode first to reset alarm output.

The infrared sensor on the DVR is just to the left of the CAMERA 1 button. Make certain that nothing blocks the sensor, or the remote control will not function properly.

When you use wireless communication devices (such as Wi-Fi or Bluetooth) near the DVR, the remote control might not function properly.

You can also use a USB mouse (not supplied) to navigate through the screens and menus much like you would on a computer.

Camera Buttons	Pressing the individual camera buttons will cause the selected camera to display full screen, and pressing the button again toggles between different display formats. The available formats are: PIP, 2x2, 1+5, 1+7 and 3x3. Buttons are also used to enter passwords. In the PTZ mode, pressing the button 1 zooms in the screen and the button 2 zooms out the screen, and pressing the button 3 focuses near and button 4 focuses far.
HDD LED	The HDD LED flickers when the DVR is recording or searching video on the hard disk drive.
Alarm LED	The Alarm LED is lit when alarm output or internal buzzer is activated.
Arrow Buttons	These buttons are used to navigate through menus and GUI. You can also use them to change numbers by highlighting a number in the menu and using the Up and Down arrow buttons to increase or decrease the number's value. These buttons are also used to control Pan and Tilt when in the PTZ mode. When in the PIP display format, pressing the Up and Down arrow buttons moves the position of the small screen counter-clockwise and clockwise, and pressing the Left and Right buttons changes the PIP screen size. In the playback mode, pressing the ◀◀ button plays video backward at high speed. Pressing the button again toggles the playback speed from ◀◀, ◀◀◀ and ◀◀◀◀. Pressing the ▶▶ button plays video forward at high speed. Pressing the button again toggles the playback speed from ▶▶, ▶▶▶ and ▶▶▶▶. When in the pause mode, pressing the ▶ button moves to the next image and pressing the ◀ button moves to the previous image.
Play/Pause Button	In the live monitoring mode, pressing the ⏯ button freezes the current screen and the screen displays ❄ icon. When in the playback mode, pressing the ⏯ button plays back images at regular speed or pauses playing video. Pressing the ⏯ button selects a highlighted item or completes an entry that you have made during system setup. When in one of the multi-view formats, pressing and holding the ⏯ button for three seconds or longer enters the cameo mode and allows you to change the screen layout.
Menu Button	In the Live Monitoring mode and Search mode, pressing the MENU button displays the menu icons on the right edge of the screen. Pressing the button again hides the menu icons. During menu setup, pressing the button closes the current menu or setup dialog box. When in the live mode, pressing and holding the button for three seconds or longer displays live channels sequentially.
PTZ/Zoom Button	In the live monitoring mode, pressing the PTZ/ZOOM button enters the zoom mode, and pressing the button again exits the zoom mode. When in the zoom mode, a rectangle displays on the screen. A rectangle shows the area that will be enlarged. You can move the rectangle around using the arrow buttons. Pressing the ⏯ button enlarges the area in rectangle. In the live monitoring mode, pressing and holding the button for three seconds or longer enters the PTZ mode, and pressing and holding the button again for three seconds or longer exits the PTZ mode. When in the PTZ mode, pressing the arrow buttons or MENU button allows you to control properly configured cameras.
Panic Button	Pressing the PANIC button starts panic recoding of all camera channels, and displays ❗ on the screen. Pressing the button again will stop panic recording.

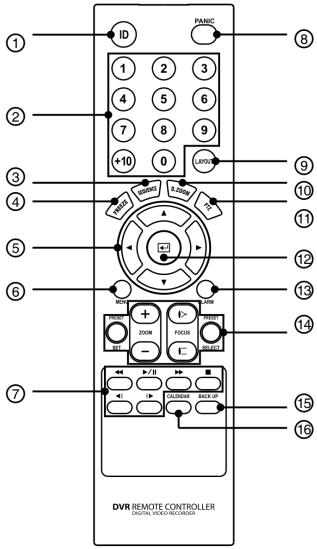
Search Button

Pressing the SEARCH button enters the search mode, and pressing the button again exits the search mode. When entering the search mode, video is paused. Pressing the button plays back video at regular speed.

In the Search mode, pressing and holding the button for three seconds or longer allows you to copy video clips.

When in one of the multi-view formats, pressing this button enters the Triplex mode. The DVR supports the Triplex function: monitoring, recording and playing back at the same time.

IR Remote Control



① ID Button
② Camera Buttons
③ Sequence Button
④ Freeze Button
⑤ Arrow Buttons
⑥ Menu Button
⑦ Playback Buttons
⑧ Panic Button
⑨ Layout Button
⑩ Zoom Button
⑪ PTZ Button
⑫ Enter Button
⑬ Alarm Button
⑭ PTZ Control Buttons
⑮ Back Up Button
⑯ Calendar Button

ID Button

If a DVR System ID is set to 0, the infrared remote control will control that DVR without any additional operations. If the system ID is 1 to 16, you must to press the ID button and then press the number button (1 to 16 (+10 & 6)) in order to control that DVR. If the System ID of two or more DVRs is set to 0, those DVRs will react to the infrared remote control at the same time.

Camera Buttons

Pressing the individual camera buttons will cause the selected camera to display full screen. Buttons are also used to enter passwords.

Sequence Button

When in the Live Monitoring mode, pressing the SEQUENCE button displays live channels sequentially.

Freeze Button

Pressing the FREEZE button freezes the current live screen.

Arrow Buttons

These buttons are used to navigate through menus and GUI. You can also use them to change numbers by highlighting a number in the menu and using the Up and Down arrow buttons to increase or decrease the number's value. These buttons are also used to control Pan and Tilt when in the PTZ mode.

When in the PIP display format, pressing the Up and Down arrow buttons moves the position of the small screen counter-clockwise and clockwise.

Pressing the Left and Right buttons moves through screen pages in the Live Monitoring mode and Search mode.

Menu Button	In the Live Monitoring mode and Search mode, pressing the MENU button displays the menu icons on the right edge of the screen. Pressing the button again hides the menu icons. During menu setup, pressing the button closes the current menu or setup dialog box.
Playback Buttons	Rewind: Pressing the ◀◀ button plays video backward at high speed. Pressing the button again toggles the playback speed from ◀◀, ◀◀◀ and ◀◀◀◀. Play/Pause: Pressing the ▶/II button plays back video at regular speed and pressing the button again pauses video. Fast Forward: Pressing the ▶▶ button plays video forward at high speed. Pressing the button again toggles the playback speed from ▶▶, ▶▶▶ and ▶▶▶▶. Stop: Pressing the ■ button stops playback and enters the Live Monitoring mode. Backward: When in the pause mode, pressing the ◀I button moves to the previous image. Forward: When in the pause mode, pressing the I▶ button moves to the next image. In the Live Monitoring mode, pressing any playback button enters to the Search mode.
Panic Button	Pressing the PANIC button starts panic recoding of all camera channels, and displays ! on the screen. Pressing the button again will stop panic recording.
Layout Button	Pressing the LAYOUT button toggles between different display formats. The available formats are: PIP, 2x2, 1+5, 1+7 and 3x3.
Zoom Button	Pressing the ZOOM button zooms the current image on the screen. A PIP with a rectangle temporarily displays showing what area of the screen has been enlarged. You can use the arrow buttons to move the rectangle to another area.
PTZ Button	Pressing the PTZ button enters the PTZ (Pan/Tilt/Zoom) mode which allows you to control properly configured cameras.
Enter Button	The ↵ button selects a highlighted item or completes an entry that you have made during system setup. This button is also used to enter the Cameo mode in the Live Monitoring mode or Search mode.
Alarm Button	Pressing the ALARM button resets the DVR's outputs including the internal buzzer during an alarm.
PTZ Control Buttons	While in the PTZ mode, the PRESET buttons are used to save Presets and load a Preset View, the ZOOM buttons are used to Zoom In and Zoom Out, and the FOCUS buttons are used for Near Focus and Far Focus.
Back Up Button	Pressing the BACK UP button allows you to copy video clips.
Calendar Button	In the search mode, pressing the CALENDAR button displays the Calendar Search screen.

Turning on the Power

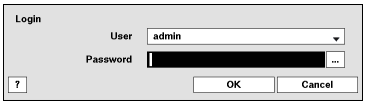
Connecting the power cord to the DVR turns on the unit. The unit takes approximately 50 seconds to initialize.

Shutting down the System

Select the System menu → General → System Shutdown and press the ⏻ button. The Shutdown screen displays asking you to confirm whether or not you want to shut the system down. After selecting Shutdown in the screen and pressing the ⏻ button, a screen will appear telling you when it is safe to disconnect power.

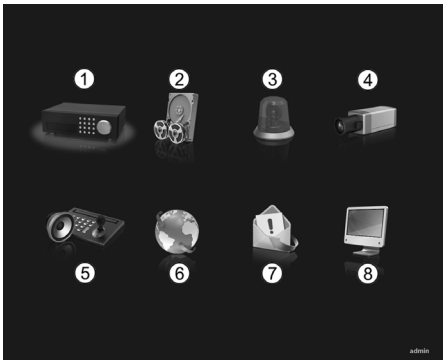
Before using your DVR for the first time, you will want to establish the initial settings. This includes items such as time and date, display language, camera, remote control, record mode, network and password. Your DVR can be set up using various screens and dialog boxes.

Press the MENU button or move the mouse pointer on the right edge of the screen and then select (Login) in the Live Monitoring menu to enter the setup screens. The Login screen appears.



Select a User and enter the password by pressing the appropriate combination of Camera number buttons and then the button. There is no default password when logging in the admin user for the first time. If you do not know the password, click the ? button for guidance.

Press the MENU button or move the mouse pointer on the right edge of the screen and then select (Setup) in the Live Monitoring menu.



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

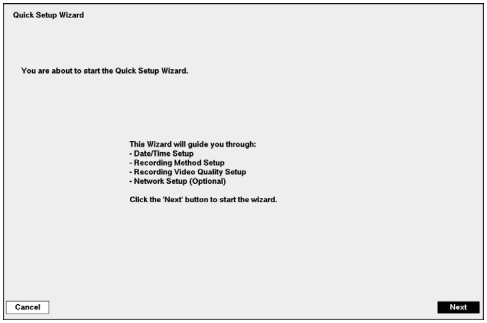
System Setup	Record Setup	Event Setup	Camera Setup
General	General	Motion	General
Date/Time	Schedule	Alarm-In	PTZ
User	Pre-Event	Video Loss	
Storage		Video Blind	
System Event		Text-In	

Device Setup	Network Setup	Notification Setup	Display Setup
Audio	General	Callback	OSD
Alarm-Out	LAN	Mail	Main Monitor
Remote Control	FEN	SNS	
	RTSP	FTP	
	WebGuard	Schedule	
	VNC		
	NetFS		

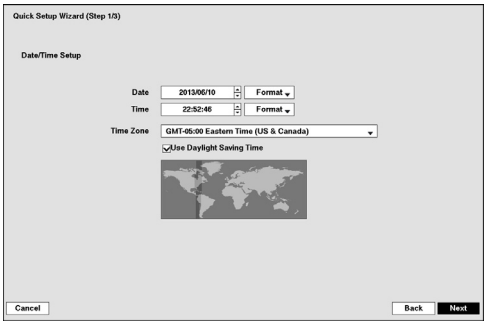
NOTE: For detailed descriptions of the system setup, refer to the User's Manual on the software CD.

Select the System menu → General → Wizard and press the button. The Wizard setup screen appears. The Wizard setup guides you through configuring the system for basic operation.

Select either Quick wizard or Network wizard and select the Next button to start the selected setup wizard.



If you selected the Quick wizard, selecting the Next button starts the Quick Setup Wizard.

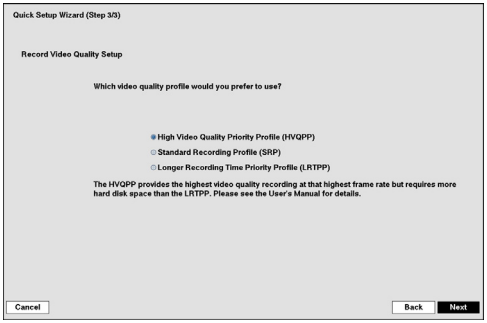


Date/Time Setup

- Date: Set the system date and select the date format.
- Time: Set the system time and select the time format.
- Time Zone: Select your time zone. The Time Zone can be selected on the map.
- Use Daylight Saving Time: Selecting the box sets the system to use daylight saving time.

Record Method Setup

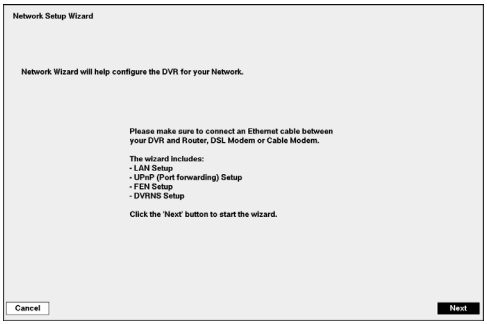
- Select the desired recording mode from:
  - Motion Event Record (Recommended)
  - Continuous & Motion Event Record
  - Continuous Record



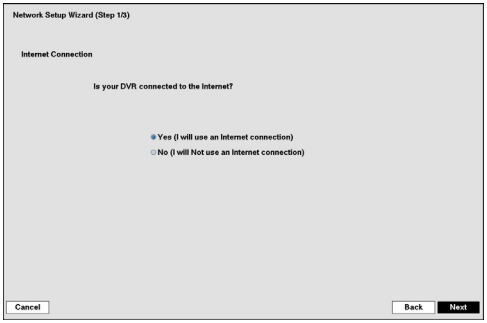
Record Video Quality Setup

- Select the desired video quality profile from:
  - Higher Video Quality Priority Profile
  - Standard Recording Profile
  - Longer Recording Time Priority Profile

Select the Finish button to finish the Quick Setup Wizard and select the Go to Network Setup button to start the Network Setup.

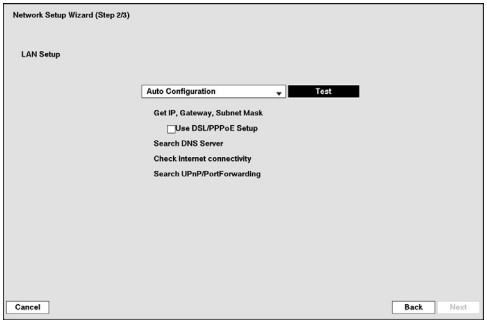


If you selected the Go to Network Setup, select the Next button to start the Network Setup Wizard.



Internet Connection

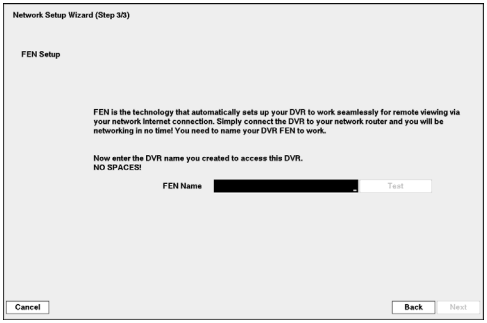
Select whether or not your DVR is connected to the Internet.



LAN Setup

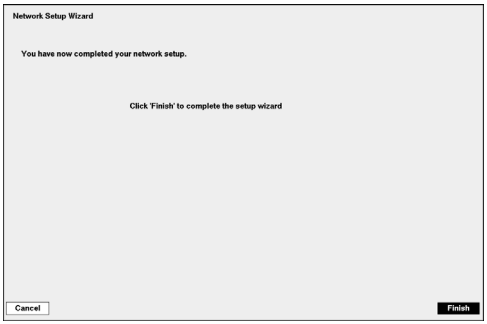
Select between Auto Configuration and Manual Configuration for network configuration, and then select the Test button to test the network configuration you selected.

- Use DSL/PPPoE Setup: Selecting the box allows you to set up the DSL network. Entering the ID and password for DSL connection is required.



FEN Setup

- FEN Name: Enter the DVR name to be registered on the DVRNS (DVR Name Service) server. The FEN Name you entered should be checked by selecting Test, otherwise the FEN changes will not be saved.

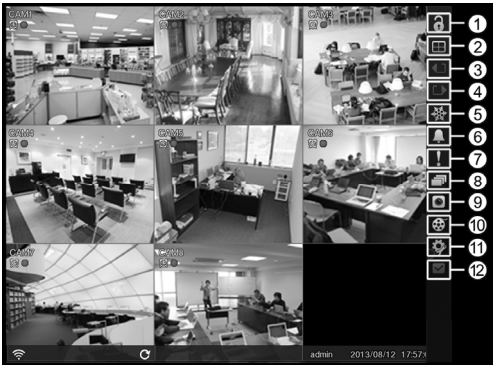


Select the Finish button to finish the Setup Wizard.

Operation

Live Monitoring

While in the live monitoring mode, pressing the MENU button displays the following Live Monitoring 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.



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

Login/Logout	Selecting accesses the Login screen, and you will be asked to select a User and enter the password to log into the system. Selecting displays the Logout screen asking you to confirm whether or not you want to log out the current user.
Display	Selecting displays the Display Menu. • Full Screen: Selecting and choosing the camera number button displays the selected camera full screen. • PIP, 2x2, 1+5, 1+7, 3x3: Selecting , , , , or displays the cameras in the selected multiview screen mode. • Camera/Status OSD: Selecting Camera OSD or Status OSD toggles Camera OSD or Status OSD On and Off.
Previous/Next Group	Selecting or moves to the previous or next page.
Freeze	Selecting will freeze the current image on the screen until you select again.
Alarm	Selecting resets the DVR's outputs including the internal buzzer during an alarm.
Panic	Selecting starts panic recording of all cameras, and selecting again stops panic recording.
Sequence	Selecting causes the cameras to display sequentially, and selecting again exits the Sequence mode.

Camera Menu	Selecting displays the Camera Menu. • PTZ: Selecting PTZ and choosing the camera number allows you to control the selected camera as long as it has Pan, Tilt and Zoom capabilities. • Zoom: Selecting Zoom and choosing the camera number zooms the current image of the selected camera on the screen. • Audio: Selecting Audio toggles audio output On and Off. • Color Control: Selecting Color Control and choosing the camera number allows you to control brightness, contrast, hue and saturation for each camera for the selected camera. • Edit Group: Selecting Edit Group enters to the Active Cameo mode.
Search	Selecting displays the Search Menu. • All Channels: Selecting All Channels exits the live monitoring mode and enters the search mode. • Triplex: Selecting Triplex enters the Triplex mode.
Setup	Selecting enters the Main Setup screen.
Status	Selecting will allow you to check the status of the DVR's system, inputs and storage.

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.

① Search
② Go To
③ Bookmark
④ Display
⑤ Previous Group
⑥ Next Group
⑦ Alarm
⑧ Panic
⑨ Camera Menu
⑩ Export
⑪ Status
⑫ Data Source
⑬ Exit

Search	Selecting displays the Search menu. • Event Log Search: Selecting Event Log Search selects video from the event log. • Record Table Search: Selecting Record Table Search selects using a recording table. • Motion Search: Selecting Motion Search selects motion events. • Text-In Search: Selecting Text-In Search selects text input strings.
Go To	Selecting displays the Go to menu. • Go to the First: Selecting Go to the First displays the first recorded image. • Go to the Last: Selecting Go to the Last displays the last recorded image. • Go to the Date/Time: Selecting Go to the Date/Time allows you to set the date and time you want to search for video.
Bookmark	Selecting adds the current playback point to the bookmark list.

Display	Selecting displays the Display Menu. • Full Screen: Selecting and choosing the camera number button displays the selected camera full screen. • 2x2, 1+5, 1+7, 3x3: Selecting , , or displays the cameras in the selected multiview screen mode. • Camera/Status OSD: Selecting Camera OSD or Status OSD toggles Camera OSD or Status OSD On and Off.
Previous/Next Group	Selecting or moves to the previous or next page.
Alarm	Selecting resets the DVR's outputs including the internal buzzer during an alarm.
Panic	Selecting starts panic recording of all cameras, and selecting again stops panic recording.
Camera Menu	Selecting displays the Camera Menu. • Zoom: Selecting Zoom and choosing the camera number zooms the current playback image of the selected camera on the screen. • Audio: Selecting Audio toggles audio playback On and Off. • Show/Hide Text-In: Selecting Show Text-In or Hide Text-In shows or hides the text-in data on the screen if the video was recorded with text-in data. • Edit Group: Selecting Edit Group enters to the Active Cameo mode.
Export	Selecting displays the Export menu. • A–B Clip-Copy: Selecting A–B Clip-Copy will set the starting point of the video to be clip copied, and the icon displays at the bottom-left corner of the screen. Selecting A–B Clip-Copy again will set the ending point of the video to be clip copied and displays the Clip-Copy screen. • Clip-Copy: Select Clip-Copy, and the Clip-Copy screen appears to allow clip copy setup. • Print: Selecting Print allows you to print a selected image.
Status	Selecting will allow you to check the status of the DVR's system, inputs and storage.
Data Source	Selecting allows you to select the data source to be searched.
Exit	Selecting exits the search mode and enters the live monitoring mode.

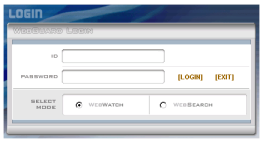
Remote Program

WebGuard

WebGuard allows you to access a remote DVR, monitor live video images and search recorded video using Internet Explorer web browser anytime from virtually anywhere.

Start Internet Explorer on your local PC. You can run the WebGuard program by entering the following information in the address field.

- "http://IP address:port number" (The DVR IP address and the WebGuard port number (default: 12088) set in the Network setup screen (WebGuard tab))
- Or, "http://DVRNS server address/DVR name" (The DVRNS server address and the DVR name registered on the DVRNS server)
- Or, "http://www.dvronline.net" (Entering the DVR IP address or the DVR name will be required when logging in)



Select between the WEBWATCH (Web monitoring) and WEBSEARCH (Web search) modes. Entering ID and PASSWORD and clicking the [LOGIN] button logs in using the selected mode.

You will need to enter the DVR IP address in the DVR ADDRESS field when running the WebGuard program by entering http://www.dvronline.net. Selecting the Use DVRNS option allows you to enter the DVR name registered on the DVRNS server instead of the IP address. You must enter the DVRNS server address and port number in the SETUP setting when selecting the Use DVRNS option.

Web Monitoring

Web Search

NOTE: For detailed instructions on operating the WebGuard program, refer to the User's Manual on the software CD.

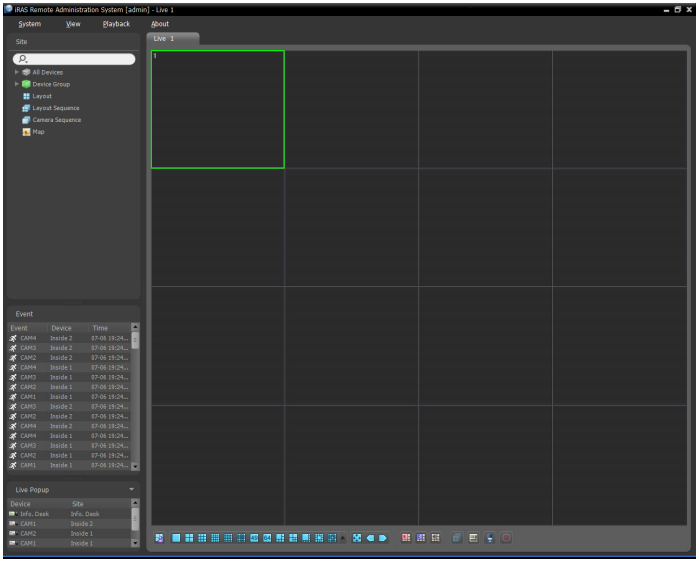
iRAS

iRAS program, which is designed to be used with remote digital video recorder, is an integrated software program that controls system management, video monitoring, video recording and image playback of multiple remote sites.

CAUTION: If an older version of iRAS software is installed on your computer, a screen appears asking you to upgrade the software. In this case, you are required to upgrade the software according to the instructions in the screen.

Insert the installation CD and install the iRAS software following the instructions.

After installing the iRAS software, run the iRAS program as follows: Go to the Start menu on the PC → Click iRAS → Enter login information.



NOTE: For detailed instructions on operating the iRAS program, refer to the User's Manual on the software CD.

RAS Mobile

RAS Mobile allows you to access remote sites and monitor live video using mobile devices anytime from virtually anywhere.

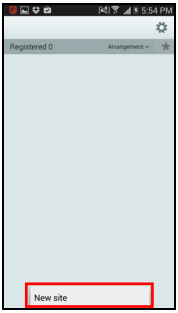
CAUTION: This program uses large amounts of data and you are responsible for all data charges. Please contact your service provider's customer service to confirm or add an unlimited data plan.

Android-based mobile devices

1. Open the Play Store (Google Play) on your Android device.
2. In Play Store (Google Play), enter RAS Mobile in the search field.
3. Install RAS Mobile and open it.

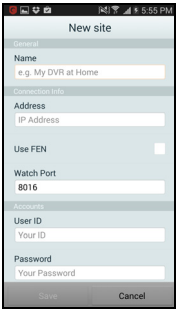
NOTE: To uninstall RAS Mobile, go to *Settings* → *Applications* → *Manage applications*. Select *RAS Mobile* and press *Uninstall*.

4. Press the Menu button on your mobile device. The following start-up screen will appear.



- New site: Registers device.
- Delete site: Deletes device. Only displayed when a registered device exists.

5. Register the device by pressing New Site and entering the device information.



- General: Enter a name of the device to be used in RAS Mobile.
- Connection Info: Configure FEN, remote address, and remote port settings.

  NOTE: Deselect the checkbox if FEN is not enabled on the device. If using a separate FEN server, tap ⚙ (*Settings*) to configure FEN server settings. For more details, contact your FEN server administrator.

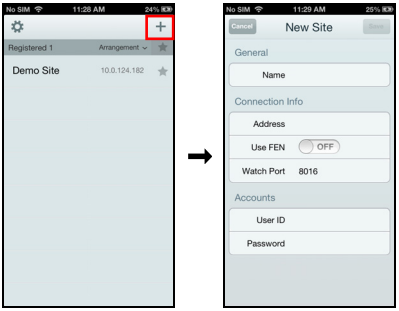
  NOTE: If FEN feature is not enabled on the device, deselect *Use FEN* checkbox and enter the device's IP address under Address. Default value is recommended for the Port setting.
- Accounts: Enter the User ID and Password used to login to the device.

iOS-based mobile devices

1. Open App Store on your device.
2. In App Store, enter RAS Mobile I in the search field.
3. Install RAS Mobile I and open it.

NOTE: To remove the *RAS Mobile I* program, press and hold the program icon for 2 seconds and then press the ⊗ button.

4. Press the + (New Registration) button on the title bar at the top. The following menu will appear.



- General: Enter a name of the device to be used in RAS Mobile I.
- Connection Info: Configure FEN, remote address, and remote port settings.

  NOTE: Deselect the checkbox if FEN is not enabled on the device. If using a separate FEN server, tap ⚙ (*Settings*) to configure FEN server settings. For more details, contact your FEN server administrator.

  NOTE: If FEN feature is not enabled on the device, deselect *Use FEN* checkbox and enter the device's IP address under Address. Default value is recommended for the Port setting.
- Accounts: Enter the User ID and Password used to login to the device.