IDIS

Video Decoder

Operation Manual

DD-1216

Powered by **Direct IP**

Before reading this manual

This operation manual contains basic instructions on installing and using DirectIP™ Video Decoder, 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 DirectIP™ Video Decoder 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.

Safety Precautions

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.

This equipment should be remain readily operable.

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.

Replace only with the same or equivalent type. Dispose of used batteries according to the instructions. The battery shall not be exposed to excessive heat such as sunshine, fire or the like.

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.

Copyright

Registered Trademarks

Table of Contents

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Part 4 - Appendix **28**

Part 1 - Introduction

Product Features

This Video Decoder compresses live video from network cameras and transmits the video over Ethernet connections. This device offers the following features:

- 16 composite video output connectors (HDMI, VGA, CVBS)
- Real time network surveillance
- H.264 and H.265 compression algorithm
- DirectIP™ and IDIS protocol supported
- Convenient firmware upgrades using usb ports
- Firmware duplication and autorecovery functions to enhance system stability
- Event detection functions: motion, tampering, audio detection, alarm-in, tripzone

Video Decoder Connection Diagram
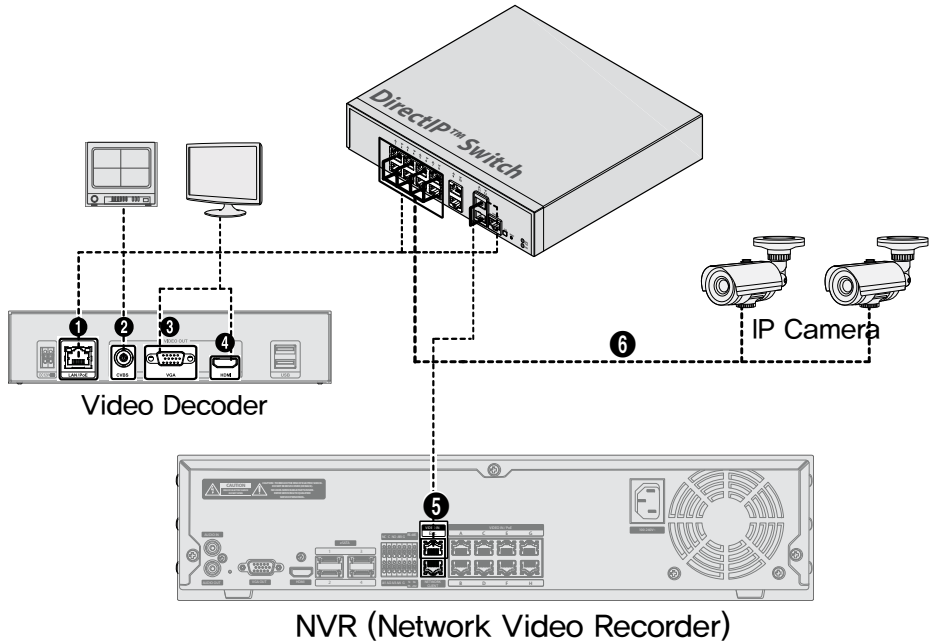
Types of Cables	
❶	LAN Cable (Data + PoE Power)
❷	CVBS Output Cable
❸	VGA Output Cable
❹	HDMI Output Cable
❺	LAN Cable
❻	LAN Cable

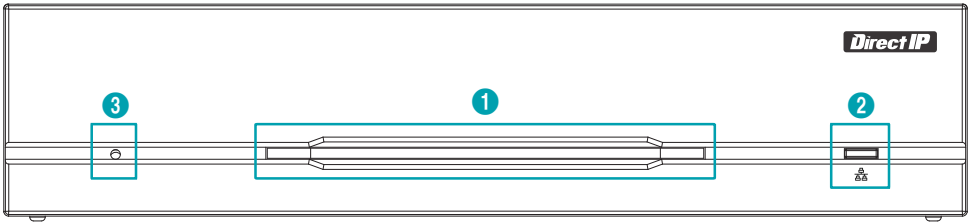* For the **IDIS protocol camera** lets you configure without connecting to the PoE Swith of an NVR.

Accessories

Upon unpacking the product, check the contents inside to ensure that all the following contents are included.

• Video Decoder
• Manual

Overview

Front Panel

❶	**Power LED**	❷	**Network LED**	❸	**Factory Reset Switch**

① **Power LED**
Displays system operating status

② **Network LED**
Displays network connection status

LED Status Indications

LED	Status	Description
Power LED	Off	No power connection
	Blinking	System booting or upgrading
	lights	System operating
Network LED	Blinking	Normal network connection

③ **Factory Reset Switch**
Use to return all settings to the original factory settings. Connect the power and poke a straightened paperclip into the factory reset switch hole. Hold the reset switch until the encoder's internal buzzer sounds twice. Release the reset switch, and all of the encoder's settings are now at the original settings it had when it left the factory.

Rear Panel
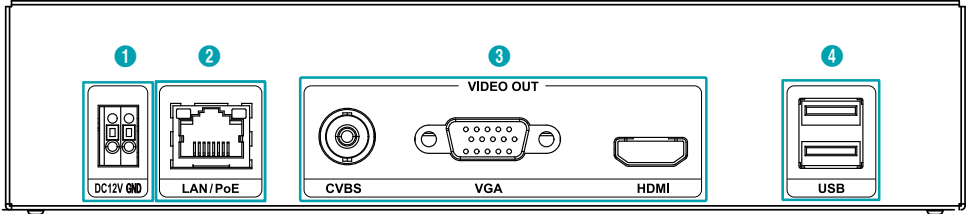
❶	DC12V In	❷	Network + PoE Power In	❸	Video Out	❹	USB (2 Ports)

① DC12V In

Connect the two wires of the power adapter to these ports. Be careful not to cross the DC12V and ground (GND) wires. Booting will commence once connected to a power supply.

② Network + PoE Power In

Connect a Cat5e cable with an RJ-45 jack. The video decoder is capable of connecting to networks via an Ethernet connector and also reveives power from the NVR that is capable of PoE function and LAN cable from Switch Hub.

③ Video Out

Connect video output ports (CVBS, VGA, HDMI). coaxial cables from the video sources.

④ USB (2 Ports)

Connect the two USB ports.

- The network connector is not designed to be connected directly with cable or wire intended for outdoor use.
- Press down on the button and insert the cable into the opening when you connect the DC12V power connectors. Release the button and then pull on the cable slightly to ensure it is held securely in place. To disconnect the cable, press down on the button again and pull the cable out.

- Ground the power port's ground terminal before use.
- Organize the power cable so that it will not cause people to trip over or become damaged from chairs, cabinets, desks, and other objects in the vicinity. Do not run the power cable underneath a rug or carpet.
- Do not connect multiple devices to a single power outlet.
- Do not connect any device other than a mouse and USB flash memory to USB ports.
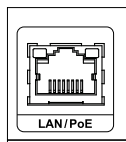
Rear Panel Connections

Monitor Connection

Connect to the VGA OUT or HDMI port.
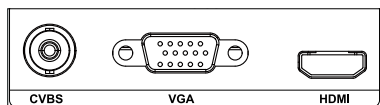
Video Connection

● **Video In/PoE**

Connect switch or the NVR using RJ-45 cable (Cat5, Cat5e, or Cat6).

> • Green LED on the right will turn on when PoE comes on line. Orange LED on the left will then flash once a link has been established.
> • If more than 16 cameras from video encoders are registered on the NVR, video may not be displayed smoothly in a remote program.

Power Cable Connection

This video decoder does not feature a separate power on/off button and will turn on the moment power is supplied. Connect the connector(12V) of adapter to the video decoder and then connect the AC power cable of adapter to the power outlet.

Factory Reset
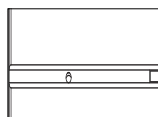
Located next to the Power LED port on the front of the video decoder is a switch that, once activated, will reset the video decoder to all its initial factory settings.

> ⚠ A factory reset will clear all video decoder settings configured by the user.

> ✓ You will need a straightened paper clip to access the factory reset button.

1   Turn off the video decoder.

2   Insert a straightened paper clip into the factory reset switch hole and press the switch. Turn on the video decoder while holding the switch.

3   Press and hold until you hear 2 beeps from the video decoder's internal buzzer.

4   All video decoder settings will be returned to their factory values once you remove the paper clip.

Connections on the Rear Panel

12V Power

CVBS Monitor

VGA Monitor

Camera

DirectIP™ Gigabit
PoE Switch
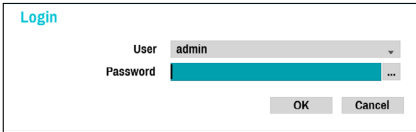
HDMI Monitor

DirectIP™ NVR
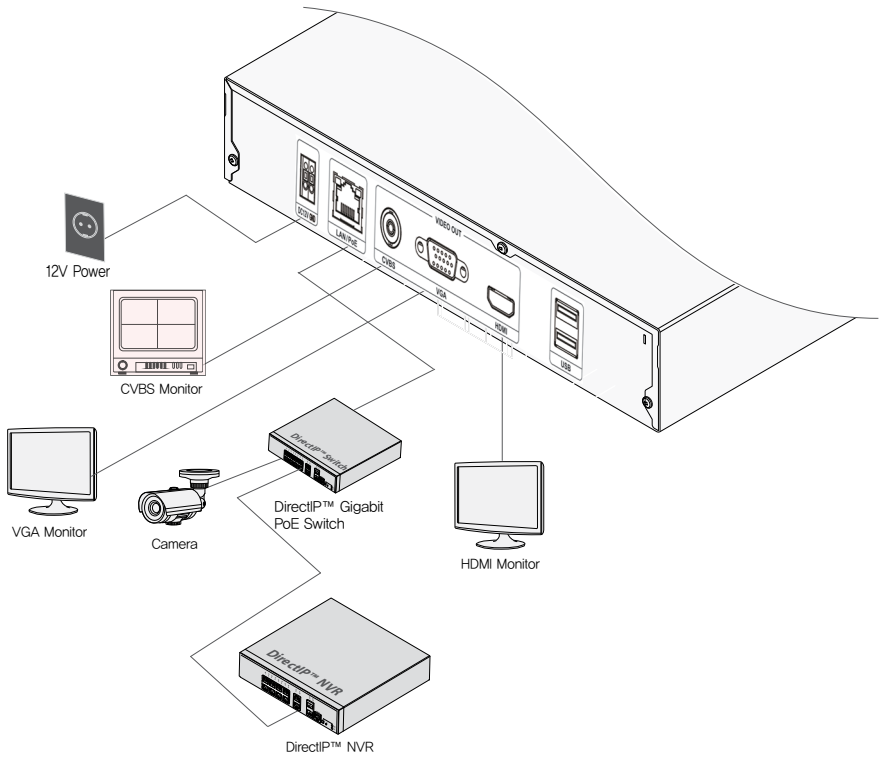
Part 2 - Getting Started

Login

Configuring the video decoder's settings and other functions require an authorized user login.

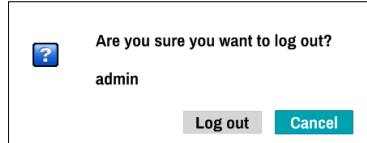*1* Bring up the Live menu and click on 🔓 (Login) using the mouse.

Login		
User	admin	▾
Password		...
	OK	Cancel

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

> ✓ • 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 20.**

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

❓	Are you sure you want to log out?
	admin
	Log out Cancel

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Live Mode

Live Menu

Place the mouse pointer on the top of the screen while in Live mode to bring up the Live menu.

①	Login/Logout	②	Layout	③	Previous Group, Next Group	④	Display
⑤	Sequence	⑥	Select Camera	⑦	Setup	⑧	Status Indication

① 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.

② Layout
Used to change the screen layout to single screen, corridor format, 2x2, 3x3, or 4x4. In order to use the corridor format feature, Corridor Format (Display - Monitor - Use Corridor Format) must first be enabled.

③ Previous/Next Group
Loads the previous/next screen group.

④ Display
- **OSD** (On Screen Display): Enables/disables the **OSD** feature.
- **Full Screen**: Displays the video in Full screen mode.
- **Aspect Ratio**: Select whether to enable the original aspect ratio of video transmitted from the camera.

⑤ Sequence
Initiates **Sequence** while in Live mode. To exit, select **Sequence** once more. The ⬒ icon is displayed on the upper right part of the screen while Sequence is in progress.

Full Sequence

Displays all channels in sequence while in Live mode (single and split screen settings). In order to use the Full Sequence feature, **Full Sequence** (Display Setup - Main Monitor > Sequence) must first be enabled.
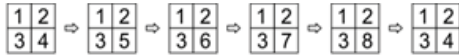
e.g.) Full Sequence in 2x2 split screen mode

$$\begin{array}{|c|c|}1&2\\3&4\end{array} \Rightarrow \begin{array}{|c|c|}5&6\\7&8\end{array} \Rightarrow \begin{array}{|c|c|}1&2\\3&4\end{array}$$

Cameo Sequence

In **Cameo Sequence** mode, only the bottom right screen in a split screen setup changes sequence. In order to use the **Cameo Sequence** feature, **Cameo Sequence** (Display Setup - Main Monitor > Sequence) must first be enabled.

e.g.) Cameo Sequence in 2x2 split screen mode

$$\begin{array}{|c|c|}1&2\\3&4\end{array} \Rightarrow \begin{array}{|c|c|}1&2\\3&5\end{array} \Rightarrow \begin{array}{|c|c|}1&2\\3&6\end{array} \Rightarrow \begin{array}{|c|c|}1&2\\3&7\end{array} \Rightarrow \begin{array}{|c|c|}1&2\\3&8\end{array} \Rightarrow \begin{array}{|c|c|}1&2\\3&4\end{array}$$

- • If using the **Full Sequence** setting, page numbers appear on the system status area on the upper right part of the screen, next to the Sequence icon.

- • 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.

⑥ **Select Camera**

Displays the selected camera in a single screen format.

⑦ **Setup**

Used to access the Setup menu.

⑧ **Status Indication**

Displays system status icons.

Status Indication

	Indicates Sequence is in use.
1/4	Indicates the current screen's group.
	Indicates an event monitoring.

PTZ Control

While in Live mode, right-click on the mouse on the camera screen and select PTZ from the context menu.
If the selected channel is a PTZ camera, selecting PTZ from the context menu will be changed into PTZ mode immediately.

However, if the clicked channel is not a PTZ camera, the menu will be disabled.

The 🅟 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.

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.
>
> • To exit PTZ mode, right-click on the mouse, open up the **Context Menu** and then select the **PTZ** exit.

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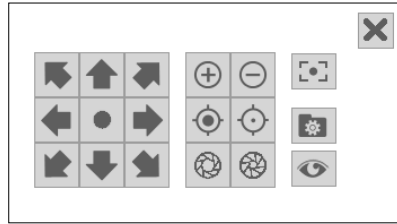
Setting Up a PTZ Preset

While in the PTZ Tools window, select the 🔩 icon to display the **Set Preset** window and assign the current position as a preset.
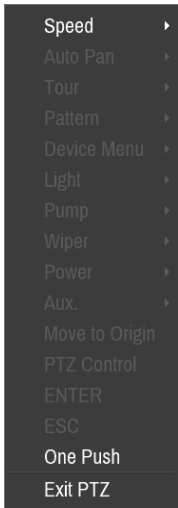
Set Preset
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
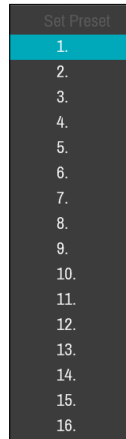
While in the PTZ Tools window, select the 👁 icon to display the **Move to Preset** window. Select a preset to move the current PTZ camera to the selected preset's position.

Move to Preset
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
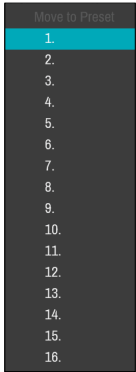
Advanced Settings

In PTZ mode, selecting a camera and then right-clicking on the right loads the Advanced PTZ screen as shown below. 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.

Speed	▶
Auto Pan	▶
Tour	▶
Pattern	▶
Device Menu	▶
Light	▶
Pump	▶
Wiper	▶
Power	▶
Aux.	▶
Move to Origin	
PTZ Control	
ENTER	
ESC	
One Push	
Exit PTZ	

> ✓ 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.

🔽 ⬆ 🔼 ⬅ ➡ ↖ ⬇ ↙	PTZ Camera Pan and Tilt
⊕ ⊖	Zoom In/Out
⊙ ⊙	Focus Near / Far
◈ ◈	IRIS Open / Close
⌞•⌟	One Push
⚙ 👁	Set / Move to Preset
●	Advanced PTZ

> ✓ • While in one push, the message "Focusing..." will prompt on the screen.
> • 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 video decoder automatically displays the channel linked to the event and shows the 🔔 icon on the system status area on the upper right portion of the screen. To use the Event Monitoring feature, navigate to **Display > Monitor** and enable **Event Monitoring**. Event Monitoring remains in effect throughout the entire **Event Monitoring Time**. After that, the video decoder 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 **Event Monitoring Time** reverts the system to Live mode.

Covert Camera

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

Navigate to **Camera Setup** > **Registration** 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.

Context Menu Access

While in Live mode, ,right-click on the mouse to access the Context menu.

- **PTZ**: Access PTZ controls.

- **Information**: Select a network channel to display information about the selected channel's device.

- **Edit Group**: Rearrange the split screen layout.

- **Login/Logout**: Log into the account or log out of the account.

Edit Group

Edit Group lets you customize split screen pages in Live mode.

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 Press a **Camera** button or select a camera after pressing the **Menu** button. Selected camera is then loaded on to the selected page. Repeat to assign other channels to the page.

3 Right-click on the mouse, open up the **Context Menu** and then select **Exit Group Edit** to exit.

Part 3 - Configuration

Menu Use

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

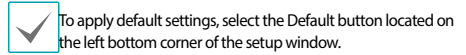Login with an ID that has permission to access the setup menu is needed to access and make changes to the Setup menu.

1 While in Live mode, select Live menu > Setup using the mouse.
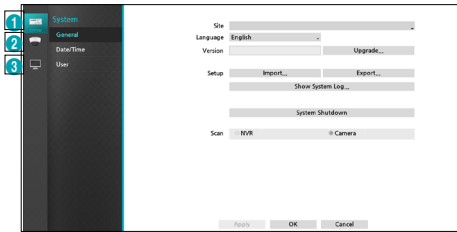
❶	System Setup
❷	Camera Setup
❸	Display Setup

2 Left-click on the mouse to select an option.

3 Change the setting and then select **Apply** or **OK** 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 to select a virtual keyboard key.
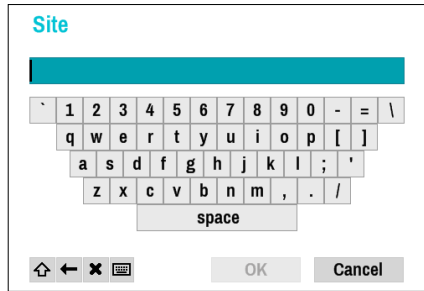
⇧	Toggle case.
←	Deletes the character to the left of the cursor.
✖	Deletes the character to the right of the cursor.
▦	Converts keyboard.

Mouse

Using a mouse makes it easy 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 20** 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**: Select to upgrade the system. Selecting Upgrade 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 device will reboot automatically.

  If an upgrade attempt fails, an upgrade failure message will be displayed. Refer to **Error Code Types on page 29** for more details.

- **Setup**: Exports current video decoder settings or imports existing settings.
- **Import**: Imports the current system settings to a storage device connected to the system's USB port.

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 video decoder supports the FAT32 file format only.

- **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 on page 28**. To export the system log, select the **Export** at the bottom of the screen and then designate a file name.

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

- **Scan** : Sets the scan settings to search for cameras. There are two ways to search for the cameras that you want to register:
  - **NVR**: Scans NVR to search for cameras connected to the NVR.
  - **Camera**: Searches for cameras using the IDIS protocol. In this case, the cameras must support the IDIS protocol.
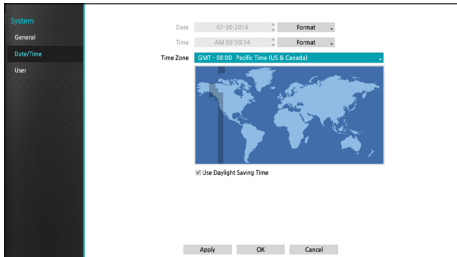
  If you change the Scan settings, the registered NVR or cameras will be disconnected.

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

> The system will restart after changing the channel mode.

Date/Time

- **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.

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 24.**
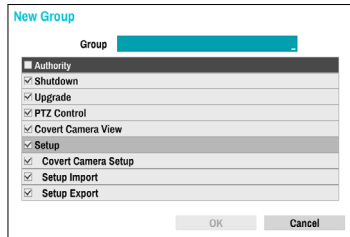
3 Select **+ User** and then enter a user name.
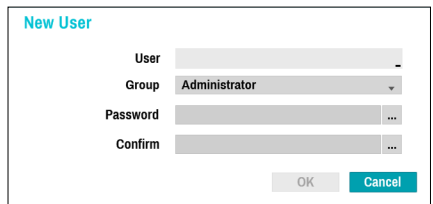
4 Select a group for the user and then enter a password. The password can be up to 16 characters in length and **Time Zone**: Used to designate the system's time zone.

5 Select **OK.**

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

7 Select **Apply** or **OK** 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 20.**
- 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).
PTZ Control		May control PTZ cameras.
Covert Camera View		May access covert cameras in Live mode.
Setup	Covert Camera Setup	May configure convert camera settings.
	Setup Import	May import previously saved video decoder settings.
	Setup Export	May export current video decoder settings.

Camera Setup

Refer to the **Menu Use on page 20** for basic information on using the Setup menus.
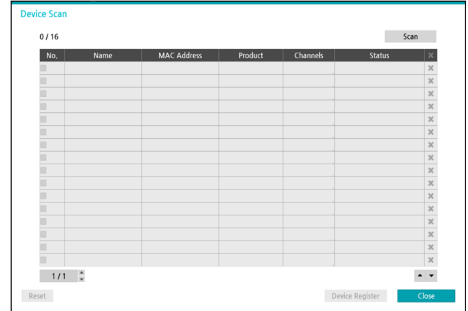
Registration

Enable/disable the covert view.
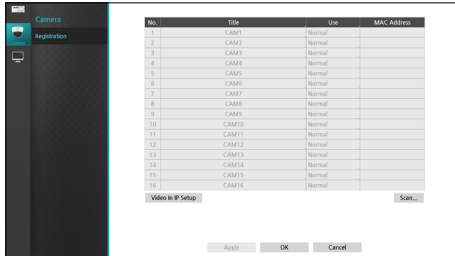
- **Use**: Set the camera as **Normal**, **Covert 1**, or **Covert 2**. Live images and video recordings from cameras that have been set as **Covert 1** or **Covert 2** will not be available to users who do not have covert camera access. Setting a camera as **Covert 1** hides its images but does display OSD information about the camera. Setting a camera as **Covert 2** hides its images as well as ODS information about the camera as if it has been deactivated completely.

NVR Scan :

If the **Scan** setting is set to NVR, you can **scan** for a NVR to connect to the video decoder by pressing the Scan button on the camera registration screen. To register a NVR, select the NVR you want from the list and then press the **Device Register** button.

You can register up to 4 NVRs.

Part 3 - Configuration

Device Registration

Registering a device requires an authorized user login. Select a **user**, enter the **password**, and then select **OK**. Selecting **OK**, the NVR will be registered automatically.

The window displaying the camera lists to register will appear. Cameras will be arranged in order of registration.

 You can select up to 16 cameras.

 Some functions may not be supported for the third party cameras depending on their performance or settings.

To change the camera to be registered again, select the **Channels** on the device scan screen.

Camera Scan :

If the **Scan** setting is set to Camera, you can scan for the IDIS protocol camera to connect to the video decoder by pressing the **Scan** button on the camera registration screen. To register a camera, select the camera you want from the list and then press the **Device Register** button.

Device Registration

Registering a device requires an authorized user login. Select a **user**, enter the **password**, and then select **OK** to try to connect to the camera. When the connection is successfully established, you can select the camera to register.

By selecting **Apply to All Devices**, you can apply the same authentication information to all of the cameras in the list. Select the channel to register after authentication.

If you register multiple cameras, a window to select the channel does not appear. The camera will be placed first on the empty channel.

 This feature is supported only with the camera connected on the IDIS protocol.

Display Setup

Refer to the **Menu Use on page 20** for basic information on using the Setup menus.

OSD

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

Status

- **Date** and **Time**: Displays the date and time.

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.
- **PTZ**: Displays the Ⓟ icon on PTZ cameras.
- **PTZ Zoom**: Displays the zoom magnification (e.g. x2, x3, etc.)

Monitor

Configure monitor-related settings.
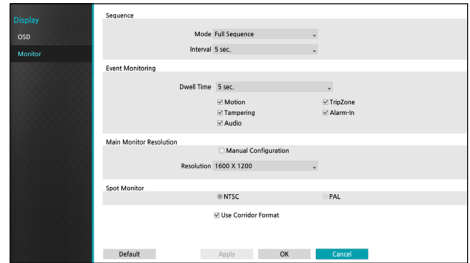
- **Mode**: Select **Full Sequence** or **Cameo Sequence**.
- **Interval**: Select between 3 secs and 2 mins. For more information on Sequence, refer to the **Full Sequence on page 16.**
- **Event Monitoring On**: With Event Monitoring enabled, video feed from the camera configured to start recording when an event occurs is shown on the screen. Select between 5 secs and 15 mins. For more information on Event Monitoring, refer to the **Event Monitoring on page 18**.
- **Manual Configuration**: Set the resolution manually regardless of the resolution supported by the monitor.
- **Resolution**: Select 3840 x 2160, 2560 x 1440, 1920 x 1200, 1920 x 1080, 1680 x 1050, 1600 x 1200.

  ☑ 3840 x 2160 resolution is supported only in HDMI 2.0 monitor, in which case the VGA output will display at 1920 x 1080.

- **Spot Monitor**: Select the analog video type outputted to spot monitor, **NTSC** or **PAL**.
- **Use Corridor Format**: Divides the screen into 3 panes. This format displays vertically and is set to display the optimized video of the camera when using the camera's pivot feature. This is particularly effective when monitoring hallways, passages, and other confined spaces.

Part 4 - Appendix

English

System Log Types

Boot Up	Login
System Shutdown	Logout
Restart	Setup Begin
Upgrade Success	Setup End
Upgrade Error	Setup Import
Power Failure	Setup Import Failure
Time Changed	Setup Export
Time Zone Change	Setup Export Failure
Time Sync.	Setup Export Canceled
Time Sync. Failed	Factory Reset

Error Code Types

	Upgrade Error Codes		
No.	Type	No.	Type
0	Unknown Error	400	USB Storage Device Mount Failure
1	Incorrect File Version	401	USB Storage Device File Read Failure
2	Incorrect OS Version	402	USB Storage Device File Copy Failure
3	Incorrect Software Version	403	USB Device Not Connected
4	Incorrect Kernel Version	404	USB Storage Device in Use
100	Storage Device Mount Failure	405	Unsupported File System
101	File Not Found		
102	File Decompression Failure		
103	LILO Execution Failure		
104	Reboot Failure		
105	Improper File		

	Network Error Codes		
No.	Type	No.	Type
0	Cause of Failure Unknown	20	Connection Cancelled by User
1	Normal Logout	21	No Response from Network Device Host
2	All Channels in Use - Connection Denied	22	High Network Noise Level
3	Incorrect Product Version Info	23	Transmission Queue Full
4	Incorrect User Name or Password	24	Incorrect OEM Info
5	Forced Disconnection by Admin	25	No Search Permission
6	Timeout	26	Port in Use
7	Network Device Terminated	27	SSL Connection Failure
8	Unable to Connect: No Available Port	28	Network Timeout
9	Server Not in Operation: Unable to Connect	29	Network Device Host Timeout

11	Network Unavailable	30	RTP via TCP Not Supported by Network Device Host
12	Different Network Zone: Unable to Access	31	Socket Error
13	Connection Timeout	100	Unknown CODEC
14	Forced Disconnection by Network Device	101	.jpeg CODEC (not supported)
15	Network Device Host Terminated	103	.mpeg4 CODEC (not supported)
16	Unable to Route to Network Device Host	400	Unsupported Resolution
17	Connection Severed	-1	Normal Access

Troubleshooting

Problem	Solution
The main unit won't turn on.	• Check the power cable connection status. • Check the power outlet.
Unable to display Live video.	• Check the camera's video cable connection status. • Check the monitor's video cable connection status. • Check the camera's power setting. • Check the camera lens settings.
The video decoder keeps on rebooting during a system upgrade without completing the upgrade.	Check the upgrade file's version. To downgrade to a previous version, you must first press the factory reset button and reset all decoder settings to their factory defaults. A factory reset will clear all decoder settings configured by the user. For more information on factory reset, refer to the **Factory Reset section on page 90**.
The system is unable to recognize network interface	• Check the LAN cable. • Check the network LED.

Specifications

Model		DD-1216
Video	**Output**	16 ch
	Compression	H.264, H.265
	Resolution	3840x2160 (Only for HDMI), 2560 x 1440, 1920x1200, 1920x1080, 1680x1050, 1600x1200
	Bitrate Control	VBR
Inputs/ Outputs	**Video Output**	HDMI, VGA, CVBS
	Ethernet	10M/100M/1Gbps
	DC12V Input	Terminal Blocks
	LED	Power(Status), Network
	Button/Switch	Reset
Environmental Conditions	**Operating Temperature**	32°F to 104°F (0°C ~ 40°C)
	Operating Humidity	0% ~ 90%
General	**Dimensions (W x H x D)**	7.9" x 1.7" x 5.7" (200mm x 44mm x 145mm)
	Unit Weight	0.78kg
	Power Supply	DC12V or PoE (IEEE802.3af class3)
	Power Consumption	12.7W
	Approval	FCC, CE, KC

These product specifications may change without prior notice.

IDIS Co., Ltd.

For more information, please visit at
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