



# Network Keyboard

Operation Manual

*NK-1200*



Powered by **Direct IP**®

# Before reading this manual

This operation manual contains basic instructions on installing and using the network keyboard. 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 pay 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 the product 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

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION:</b> 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. 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 in an enclosed space. Sufficient ventilation is required to prevent an increase in ambient temperature which can cause malfunction 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.

### 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. 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.

## In-Text

Symbol	Type	Description
	<b>Caution</b>	Important information concerning a specific function.
	<b>Note</b>	Useful information concerning a specific function.

## 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.

## 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. 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 complete corresponding source code from us. See the Open Source Guide on the software CD (OpenSourceGuide\OpenSourceGuide.pdf) or as a printed document included along with the User's Manual.

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# Part 1 – Introduction

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## Product Features

This manual provides information for use and control of the network keyboard on a network environment.

This network keyboard controls Network Video Recorders (NVRs), network cameras and Video Management System remotely via network connection. Also, the network keyboard controls PTZ cameras connected via RS485 connection. The network keyboard can be accessed, configured, and managed by the IDIS Discovery (integrated network installation tool) program with the following features:

- Remote controls for NVRs, network cameras, and Video Management System via network connection
- Controls for various models of PTZ cameras via RS485 connection
- Two-way audio communication
- Convenient firmware upgrades via either the USB port or Ethernet
- Firmware duplication and auto recovery to enhance the system stability
- Management for multiple network keyboards via network connection
- Recalls for a maximum of 100 macros and a maximum of 8 mapping functions
- Programmable by the LCD screen
- Controls for NVRs by using a USB mouse via network connection

## Compatible Devices

- Video Management System (IDIS Solution Suite)
- NVR (Network Video Recorder)
- Network Camera
- PTZ Camera

## Accessories

- Network Keyboard Body
- Joystick (Removable) and Joystick Cable
- DC Adapter (48V)
- Power Cord
- Operation Manual



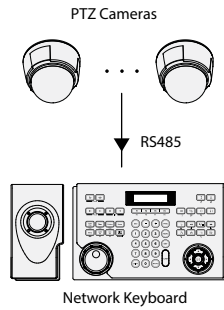
Please download software (IDIS Discovery) and product manual from this link:

<https://www.idisglobal.com/support/csdownload>

- IDIS Website ([www.idisglobal.com](http://www.idisglobal.com)) > Support > Technical Resources

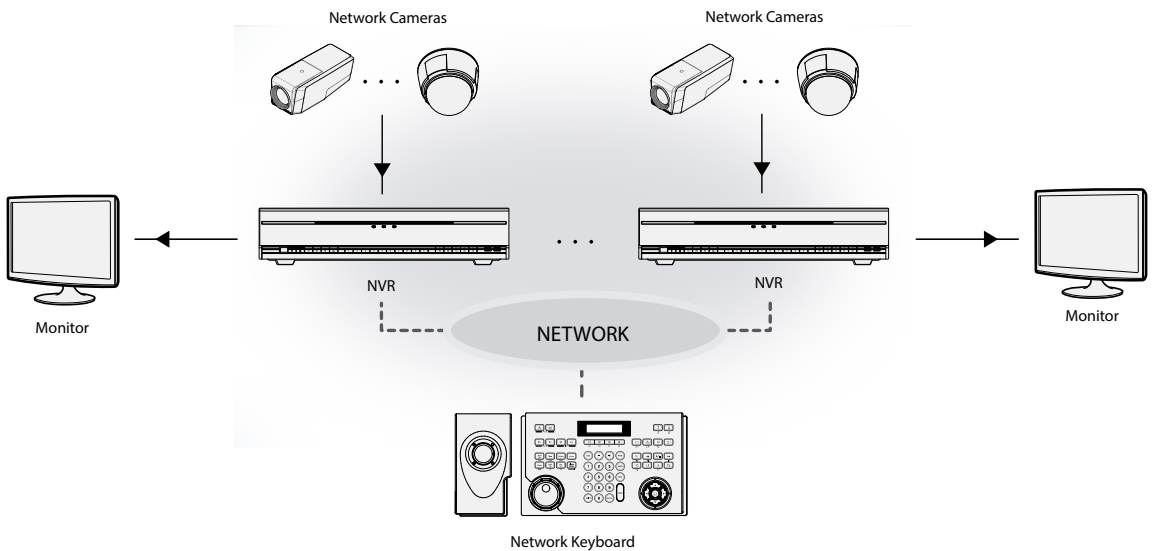
## Typical Applications

### Controls for PTZ Cameras



You can control PTZ cameras via RS485 connection. For more information, see **Part 2 - Installation, PTZ Camera Registration**.

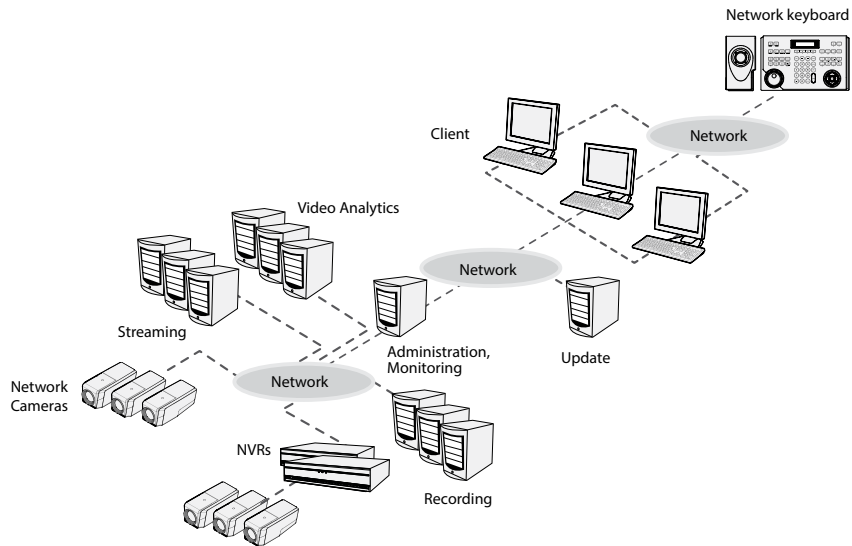
### Controls for NVR Systems



You can control NVRs and PTZ cameras connected to the NVRs via a network. For more information, see **Part 2 - Installation > NVR System Registration** and **Part 3 - Operations > Controls for NVR System**.



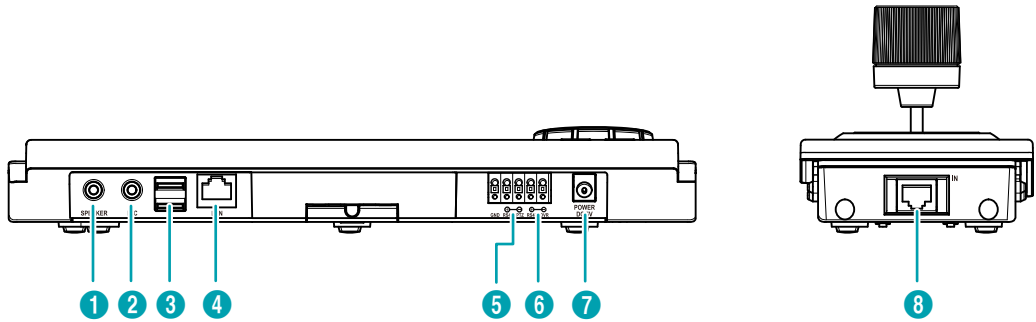
## Controls for Video Management System



You can control Video Management System via a network. For more information, see **Part 2 - Installation > Video Management System Registration** and **Part 3 - Operations > Controls for Video Management System**.

## Overview

### Rear Panel



1	Speaker	2	MIC	3	USB Port
4	Network Port	5	RS485 PTZ Port	6	RS485 DVR Port
7	Power In	8	Joystick Port		



- The network connector is not designed to directly connect a cable or wire for outdoor use.
- Do NOT connect or disconnect the joystick cable while the network keyboard is on. The network keyboard must be off before connecting or disconnecting the joystick cable; otherwise, it may affect the network keyboard or cause it to malfunction.



ROUTE **POWER** CORDS SO THAT THEY MAY NOT FORM A TRIPPING HAZARD. MAKE SURE 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 HAVING TOO MANY DEVICES PLUGGED IN.

**① Speaker**

Connect to an amplifier (Line-out). The network keyboard does not have the amplified audio output so a speaker with an amplifier is needed. Audio surveillance may be prohibited by local laws that vary by the region. Check the laws in your area before using this product for surveillance purposes.

**② MIC**

Connect to an audio source. (Line-in or Microphone)

**③ USB Port**

Connect a USB flash drive or USB mouse. You can upgrade the software after connecting a USB flash drive or you can control devices that are controlled over a network by using a USB mouse. The USB mouse is supported only for NVRs that provide the function. See below for details about the software upgrade.

**④ Network Port**

Connect a UTP Cat5 cable with an RJ-45 jack. For more information about the network setup, see **Part 5 - Remote Setup** and refer to IDIS Discovery Operation Manual on the installation CD provided with the network keyboard.

**⑤ RS485 PTZ Port**

Connect to PTZ cameras. Connect TX+/RX+ and TX-/RX- of each PTZ camera to the + and - (respectively) of the network keyboard. For RS485 configuration, refer to the PTZ camera manufacturer's manual.

**RS485 PTZ Connector Pin Outs**

Master Unit		Slave Unit		
+	→	To	→	TX+/RX+
-	→	To	→	TX-/RX-

**⑥ RS485 DVR Port**

RS485 DVR port is not supported.

**⑦ Power In**

Connect the power adaptor provided with the network keyboard. The network keyboard starts booting as soon as power is applied.

**⑧ Joystick Port**

Connect a joystick cable. The joystick cable must be connected while the network keyboard is off.

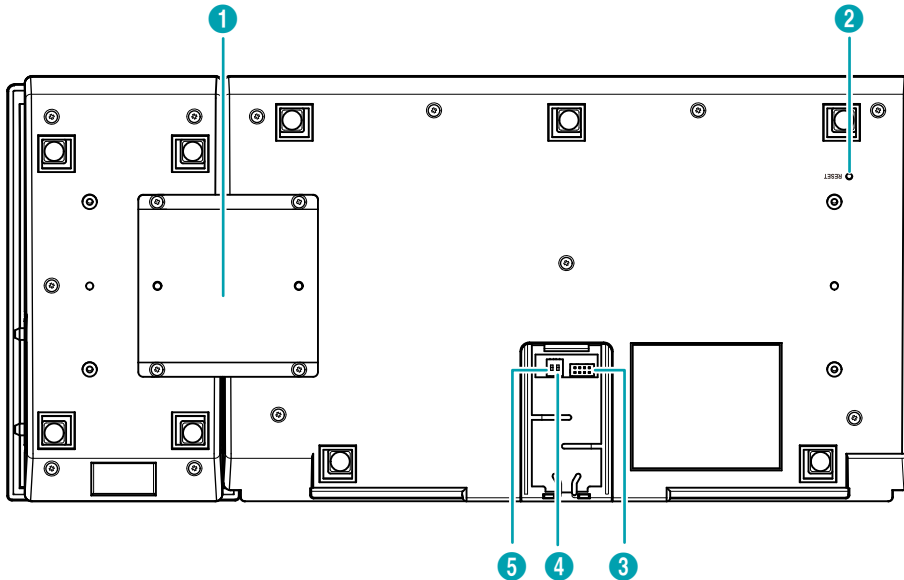
**Software Upgrade**

- 1 Copy the upgrade file to a USB flash drive.
- 2 Create a text file to contain only the upgrade file name and its extension (.ruj). Then save the text file as autorun.txt on the flash drive
- 3 Connect the USB flash drive to the network keyboard.
- 4 Enter into the LCD menu.
- 5 Select **General > Upgrade**. Selecting **Yes** causes the network keyboard to load the upgrade file named in **autorun.txt**. Then the upgrade is performed automatically. The network keyboard will restart.
- 6 The LCD default screen appears after finishing the upgrade. If an error occurs during the software upgrade, see **Part 6 - Appendix > System Upgrade Error Codes**.



You can upgrade the software remotely by running the IDIS Discovery program. For more information about the remote software upgrade, refer to IDIS Discovery Operation Manual on the installation CD provided with the network keyboard.

## Bottom Panel



①	Joystick Bracket	②	Factory Reset Switch	③	Joystick Input Port
④	RS485 NVR Termination (1)	⑤	RS485 PTZ Termination (2)		

### ① Joystick Bracket

Use the provided bracket and screws to attach the joystick to the network keyboard body. The joystick can be attached to either the left or right of the network keyboard body.



Do NOT connect or disconnect the joystick cable while the network keyboard is on. The network keyboard must be turned off while connecting or disconnecting the joystick cable; otherwise, it may affect the network keyboard or cause it to malfunction.

### ② Factory Reset Switch

Returns all settings to the factory defaults. For more information, see **Factory Reset**.

### Factory Reset



When performing Factory Reset, the settings you have saved are lost.

### ③ Joystick Input Port

Connect the cable from the joystick. The joystick cable must be connected while the network keyboard is off.

### ④ RS485 NVR Termination (1)

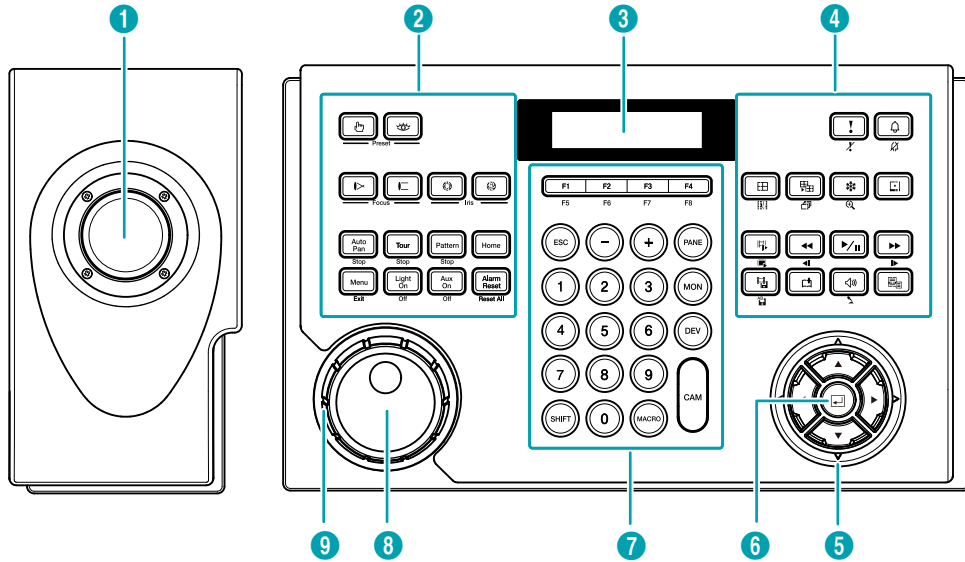
RS485 NVR Termination (1) switch is not supported.

### ⑤ RS485 PTZ Termination (2)

Set the switch ON if RS485 communication environment is not normal and the connection is not made while controlling a PTZ camera via RS485 connection.

You can perform Factory Reset while the network keyboard is on. Poke a straightened paperclip into the factory reset switch hole and hold the switch for about three seconds. After releasing the switch, the factory reset function is performed. The function also can be performed remotely using the IDIS Discovery program. The network keyboard restarts after finishing the function. Refer to IDIS Discovery Operation Manual on the installation CD provided with the network keyboard. For more details about remote factory reset.

## Top Panel



1	Joystick	2	PTZ Camera Control Buttons	3	LCD Screen
4	Device Control Buttons	5	Arrow Buttons	6	Enter Button
7	Command Buttons	8	Jog Dial	9	Shuttle Ring

### 1 Joystick

Enables pan and tilt controls for a PTZ camera by using a stick and zoom of a PTZ camera with an aid of the shuttle ring.

### 2 PTZ Camera Control Buttons

Controls a PTZ camera by setting the presets or expanded PTZ features. For more information, see **Part 6 - Appendix > Buttons > Controls for PTZ Camera**.

### 3 LCD Screen

Displays operation commands and LCD menus. For more information, see **Part 3 - Operations** and **Part 4 - LCD Menu Configuration**.

### 4 Device Control Buttons

Controls remote devices including NVRs. For more information, see **Part 6 - Appendix > Buttons > Device Controls**.

### 5 Arrow Buttons

Allows you to navigate through setup menus or adjust numeric values during configuration.

### 6 Enter Button

Selects an item or completes an entry that you make while configuring the network keyboard or devices.

### 7 Command Buttons

Gives commands. For more information, see **Part 6 - Appendix > Buttons > Operation Commands**.

### 8 Jog Dial

Functions only when controlling a NVR. For more information, see **Part 6 - Appendix > Buttons > Controls for Video Management System, NVR and Network Camera**.

### 9 Shuttle Ring

Functions only when controlling a NVR. For more information, see **Part 6 - Appendix > Buttons > Controls for Video Management System, NVR and Network Camera**.

# Part 2 - Installation

For the network keyboard to properly control a device, the device must be registered on the network keyboard. Basic and Advanced modes are supported for registration and control of the device, and the device can be controlled only in the mode for which it was registered. When controlling devices via RS485 connection only, you can register them in Basic or Advanced mode. When controlling devices by using a network and RS485 connection, you can register them only in Advanced mode. Both the LCD menus and the IDIS Discovery program can be used for registration in Basic mode, and the IDIS Discovery program can be used for registration only in Advanced mode.

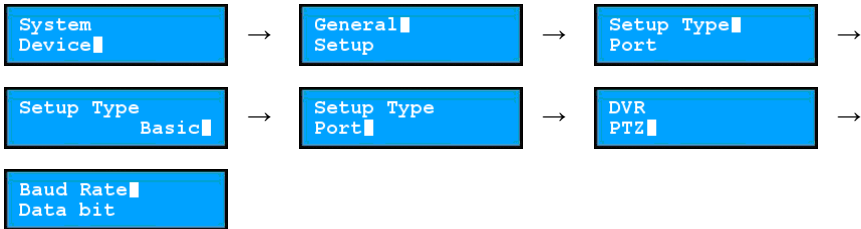
## PTZ Camera Registration

You can register PTZ cameras for control via RS485 connection. PTZ cameras with different ports can be controlled only in Advanced mode.

### Basic Mode

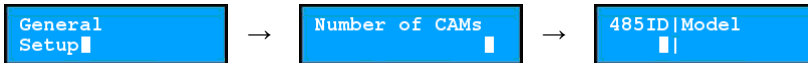
PTZ cameras can be directly registered using the network keyboard with the LCD menus or remotely using the IDIS Discovery program. For more information about remote registration, see **Part 5 - Remote Setup > Devices**. The following explains how to perform registration with the LCD menus.

- 1 Connect a PTZ camera to the RS485 PTZ port on the network keyboard after referring to the operation manual of the PTZ camera.
- 2 Enter into the LCD menu by pressing **[SHIFT]** + **[↵]** on the network keyboard. For more information about LCD menu entry and configuration, see **Part 4 - LCD Menu Configuration**.
- 3 Select **Device > General**.
  - Setup Type: Select **Basic** (Basic mode).
  - Port: Select **PTZ** and set up port information for RS485 communication referring to the settings in the PTZ camera.



4 Return to the Setup menu by pressing **[ESC]**.

- Number of CAMs: Enter the number of cameras connected to the network keyboard.
- 485ID, Model: Set the RS485 ID and model number of the PTZ camera for RS485 communication. The RS485 ID is used to distinguish it from other cameras during control with the network keyboard, so each camera must have a unique RS485 ID. For more information about the model number of the camera, see **Part 6 - Appendix > PTZ Camera Model Numbers**.



## Advanced Mode

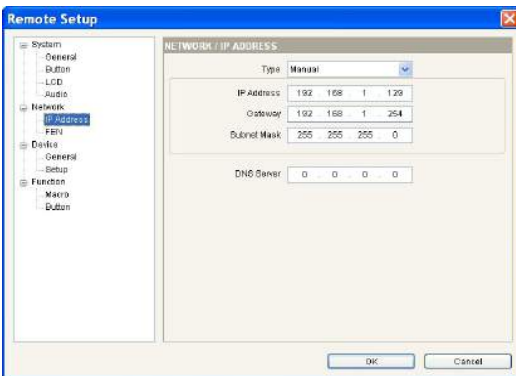
PTZ cameras can be registered using the network keyboard remotely with an aid of the IDIS Discovery program. For more information about remote registration, see **Part 5 - Remote Setup > Devices**.

## NVR System Registration

You can register a NVR for control via network connection. The user-defined IDs registered on the network keyboard are required for control.

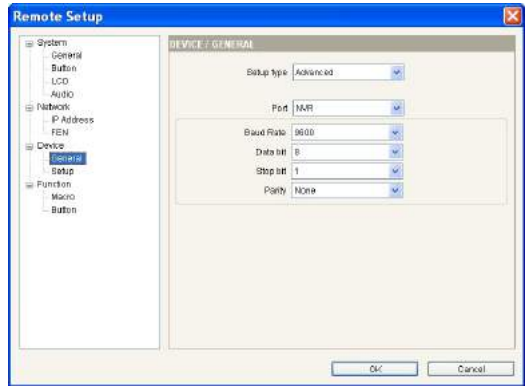
NVRs can be registered on the network keyboard remotely with an aid of the IDIS Discovery program. For more information about remote registration, see **Part 5 - Remote Setup > Devices**.

- 1 Connect a NVR to the network.
- 2 Run the IDIS Discovery program and connect the network keyboard for NVR registration. For more information about the IDIS Discovery program, refer to IDIS Discovery Operation Manual on the installation CD provided with the network keyboard.
- 3 Select **Setup > Remote Setup > Network > IP Address**.



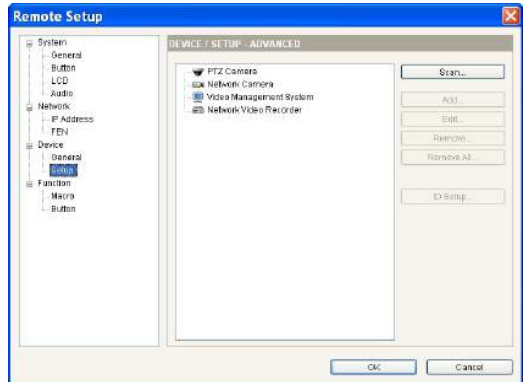
Configure the network connection information for the network keyboard.

- 4 Select **Setup > Remote Setup > Device > General**.



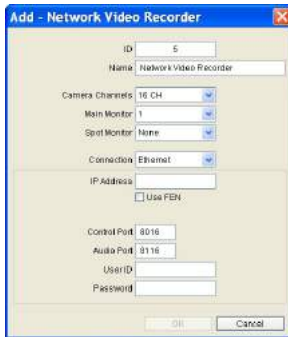
Select **Advanced** in Setup Type.

- 5 Select **Setup > Remote Setup > Device > Setup**.

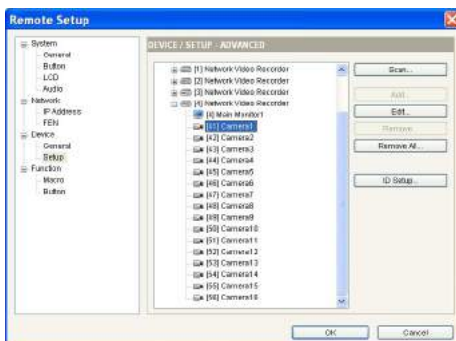




- 5-1 Click **Network Video Recorder** in the device list and click **Add** for registration.

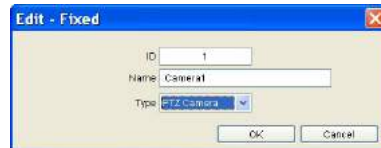


5-2 Configure the information and click **OK**.

- **ID:** The network keyboard assigns the ID automatically when the NVR is registered, and you can change the ID. The ID is used to distinguish it from other devices during control with a network keyboard, so each must have a unique ID.
- **Connection:** Select **Ethernet** and enter the IP address, number of ports (Control Port: Watch port), user ID, and password for connection to the NVR if the NVR is connected to the network. The user ID and password are required to access the NVR. You must log on as a user with permission to perform functions for controlling the NVR. If another user is logged on to the NVR, the current user must be logged off from the NVR.

5-3 Click **Network Video Recorder** for the device list, then click a registered NVR. A list of monitors and cameras for the NVR appears.

-  **[ID] Main Monitor 1**,  **[ID] Main Monitor 2:** Displays the monitor ID and its type (Main Monitor 1: Main or primary monitor, Main Monitor 2: Secondary monitor).

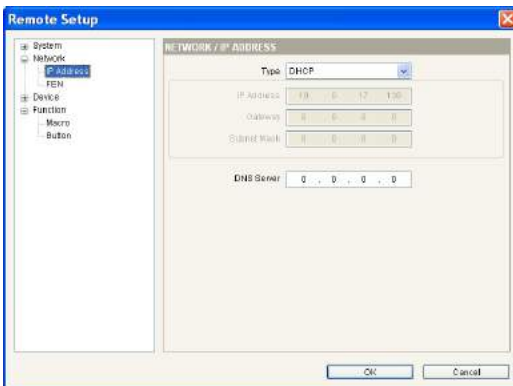
5-4 Click a monitor or camera in the list and click **Edit**. Configure the monitor or camera information.

- **ID:** The network keyboard assigns the ID automatically when the NVR is registered, and you can change the ID. The ID is used to distinguish the monitor or camera from others during control with a network keyboard, so each must have a unique ID.
- **Type:** Set the type of the camera. Select **Fixed** if the camera is not a PTZ camera. Select **PTZ Camera** if the camera is a PTZ camera.

## Video Management System Registration

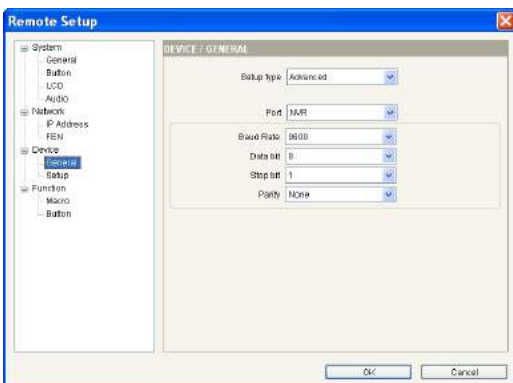
You can register the video management system for control via network connection. The video management system can be controlled only in Advanced mode with an aid of the IDIS Discovery program.

- 1 Connect the video management system to the network.
- 2 Run the IDIS Discovery program and connect the network keyboard for registration. Refer to IDIS Discovery Operation Manual on the installation CD provided with the network keyboard, for more information about the IDIS Discovery program.
- 3 Select **Setup > Remote Setup > Network > IP Address**.



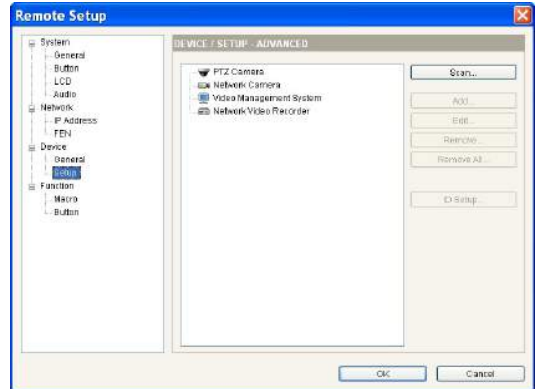
Configure the network connection information.

- 4 Select **Setup > Remote Setup > Device > General**.

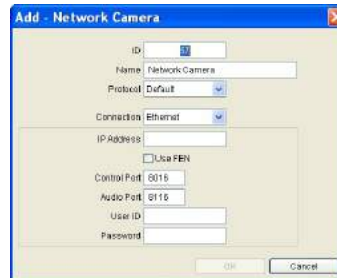


Select **Advanced** in Setup Type.

- 5 Select **Setup > Remote Setup > Device > Setup**.



- 5-1 Click **Video Management System** and click **Add** for registration.



- 5-2 Configure the registration information and click **OK**.

- **ID:** The network keyboard assigns the ID automatically when the video management system is registered, and you can change the ID. The ID is used to distinguish the video management system from others during control with a network keyboard, so each must have a unique ID.
- **Connection:** Select **Ethernet** and enter the IP address, number of ports, user ID, and password for connection to the video management system.

# Part 3 - Operations

You can control devices via RS485 and network connection with the network keyboard. The devices must have been registered on the network keyboard. You can control the devices in Basic or Advanced mode depending on the device's registration mode on the network keyboard. For more information about device registration, see **Part 2 - Installation** and **Part 5 - Remote Setup**.

## Overview

The network keyboard is operated using operation commands that are connected to each respective command button. For more information about the command buttons, see **Part 6 - Appendix > Buttons > Operation Commands**.

- Do NOT operate the network keyboard while any remote connection is made to the network keyboard. Otherwise, the network keyboard may not work properly.

## LCD Display

LCD Display	Description
	<ul style="list-style-type: none"> <li>Displays the default screen.</li> </ul>
	<ul style="list-style-type: none"> <li>Indicates that the number or ID of a monitor, pane, device or camera is selected. Press a command button to control the device.</li> <li>The network keyboard receives commands in the following order: <b>MON</b> (Monitor) → <b>PANE</b> (Pane) → <b>DEV</b> (Device) → <b>CAM</b> (Camera). You can give a new command without cancelling the current command if the command is given to the same monitor, pane, device or camera. Just press the number or ID button, then the command button. For example, entering the 1 → <b>MON</b> → 1 → <b>CAM</b> commands displays the video from the camera [1] on the monitor [1], and entering the 2 → <b>CAM</b> commands without cancelling the current commands displays the video from the camera [2] on the same monitor [1].</li> </ul>
	<ul style="list-style-type: none"> <li>Indicates the monitor ID → <b>MON</b> command is entered. You can control a device that the monitor is connected to.</li> </ul>
	<ul style="list-style-type: none"> <li>Indicates the device ID → <b>DEV</b> command is entered. You can control the selected device.</li> </ul>
 	<ul style="list-style-type: none"> <li>Indicates the camera number or ID → <b>CAM</b> command is entered. You can control the selected camera.</li> <li>When entering the <b>DEV</b> → <b>CAM</b> commands, enter the camera number of the device, and the CAM command appears with a lower case "c" on the LCD screen.</li> <li>When entering the <b>MON</b> → <b>CAM</b> commands or the <b>PANE</b> → <b>CAM</b> commands, press the camera ID set on the network keyboard. Then the <b>CAM</b> command appears with a upper case "C" on the LCD screen.</li> </ul>

## Locking Buttons

Pressing **[SHIFT]** + **[ESC]** locks all buttons on the network keyboard. You can make the buttons on the network keyboard locked after a preset time of inactivity. This can be done by using the LCD menu or the IDIS Discovery program. This function does not work if a User password has not been set or if the button lock time is set to **Never**. For more information about the setup for User password and button lock function, see **Part 4 - LCD Menu Configuration > Setup Menu > System** or **Part 5 - Remote Setup > System**.

When all buttons are locked, the network keyboard does not receive any commands and any given commands are cancelled. To unlock the buttons, the User password must be entered.

- 1 Press **[SHIFT]** + **[ESC]**.

Select Devices:

- 2 The buttons are locked so press **[↵]** to unlock them.

Key Locked

- 3 Enter the User password and press **[↵]**.

Input User Pwd

- 4 The buttons are now unlocked.

Select Devices:

## Cancelling a Command

Pressing **[ESC]** after entering an ID or number cancels the entry and returns to the previous command. Pressing **[ESC]** after pressing a command button cancels the command and returns to the default screen.

- 1 Press a camera ID after selecting a monitor.

M006

- 2 Pressing **[ESC]** cancels the entry and returns to the previous command.

M006 1

- 3 Press the camera ID.

M006

- 4 Press **[CAM]**.

M006 2

- 5 The video for the selected camera is displayed on the monitor. Pressing **[ESC]** or **[SHIFT]** + **[DEV]** cancels the command and returns to the default screen.

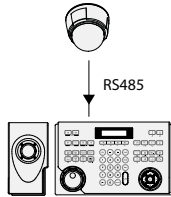
M006 C002

Now you can press a new command.

Select Devices:

## Controls for PTZ Camera

You can control PTZ cameras via RS485 connection. For more information about control buttons, see **Part 6 - Appendix > Buttons**.



- 1 Press the camera ID. To control the camera in Basic mode, press the 485 ID instead of the camera ID.

Select Devices: 3

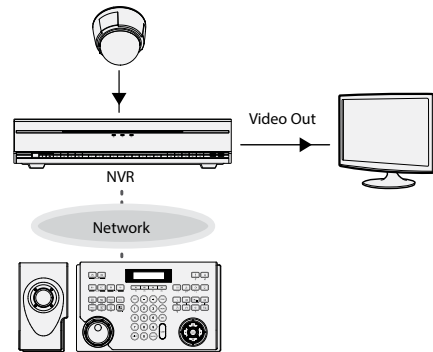
- 2 Press **[CAM]**. Now you can control the camera using the PTZ control buttons.

C003

## Controls for NVR System

You can control NVRs and PTZ cameras connected to the NVRs via network connection. You must log on as a user with permission to perform functions while controlling a NVR or PTZ camera. If another user is logged on to the NVR, the current user must be logged off. Otherwise, the NVR and its PTZ cameras are controlled with the permission of the first user. For more information about each control button, see **Part 6 - Appendix > Buttons**.

## Controlling a PTZ Camera



- 1 Press the camera ID.

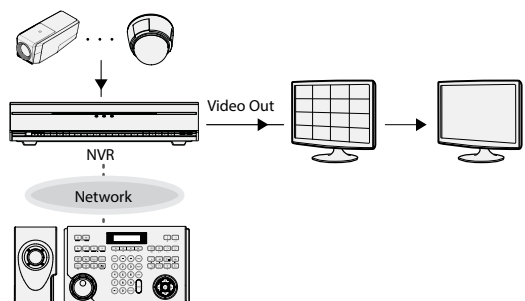
Select Devices: 3

- 2 Press **[CAM]**. Now you can control the camera using the PTZ control buttons.

C003

## Controlling a NVR

### Example 1



- 1 Enter the NVR ID.

Select Devices: 5

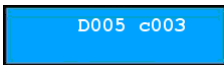
- Press **[DEV]**. You can control the NVR for the main monitor 1 using the device control buttons.



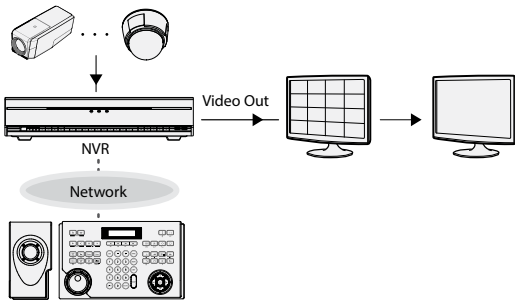
- Enter the camera number of the NVR.



- Press **[CAM]**. The video for the camera is displayed on the main monitor 1 connected to the NVR. You can control the camera using the PTZ control buttons if it is a PTZ camera.



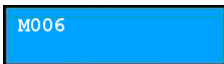
### Example 2



- Press the monitor ID.



- Press **[MON]**. Using the device control buttons, you can control the NVR that the monitor is connected to.



- Press the camera ID.



- Press **[CAM]**. The video for the camera is displayed on the selected monitor. You can control the camera using the PTZ control buttons if it is a PTZ camera.



## Controls for Video Management System

You can control the video management system via network connection. For more information about each control button, refer to the operation manual of the video management system.

### Monitoring Video

- Press the Live tab ID on the network keyboard.



- Press **[DEV]**.



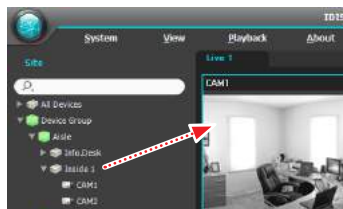
- Press the camera screen ID.




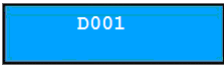
- Press **[PANE]**.






- Select a target site in the Site list, and drag and drop it on the Live screen by using the mouse button connected to the network keyboard. The live video for the selected site is displayed on the screen.



- 6 Press  (Menu). The live screen menu appears.



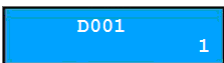
- 7 Select the desired item on the menu with arrow buttons and press . If you want to unselect it, press  again. If you want to exit from the setting, press  (Menu). Then it releases the selection.



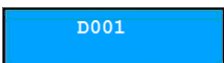
- For more information about other functions, refer to the operation manual of the video management system (Network Keyboard Buttons).

## Playing Recorded Video

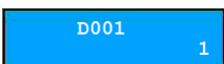
- 1 Press **Play** or NVR Search tab ID on the network keyboard.



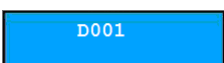
- 2 Press .



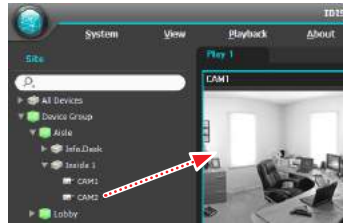
- 3 Press the camera screen ID.




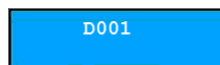
- 4 Press .





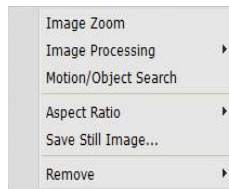
- 5 Select a target site in the Site list, and drag and drop it on the Play or NVR Search screen by using the mouse button connected to the network keyboard. The recorded video of the selected site is displayed on the screen.



- 6 Press  (Menu). The live screen menu appears.



- 7 Select the desired item with arrow buttons and press () or release the selection. If you want to exit from the setting, press  (Menu). Then it releases the selection.



- For more information about other functions, refer to the operation manual of the video management system (Network Keyboard Buttons).





## Setup Menu

### System

<b>General</b>	Version	Displays the software version.
	Password	Sets the Admin password or User password (max. four digits). Entering the current password allows you to enter a new password; there is no factory default password. The Admin password is required to connect to the network keyboard and set up the LCD menu. The User password is required to control the network keyboard.
	Default Settings	These settings are used only for urgent occasions if you want to return all the settings to the original ones. For more information, see <b>Part 1 — Introduction &gt; Factory Reset</b> .
	MAC Address	Displays the MAC address.
<b>Button</b>	Beep	If it is set to <b>ON</b> , the network keyboard beeps when any button is pressed.
	Lock	Locks the buttons. The buttons will be locked after a preset time of inactivity on the network keyboard. To unlock the buttons, the User password must be entered. This feature does not function if a User password has not been set or the time is set to "0."
<b>LCD</b>	Contrast	Adjusts the contrast of the LCD screen. (1: Low, 2: Medium, 3: High)
	Backlight Off	Adjusts the LCD screen backlight time in minutes. The backlight will be turned off after a preset time of inactivity on the network keyboard. This feature does not function if the time is set to "0."
<b>Audio</b>	Volume	Adjusts the volume for audio input and output.
<b>Upgrade</b>		If you set the value to <b>Yes</b> , it upgrades the software. For more information, see <b>Part 1 – Introduction &gt; Software Upgrade</b> .

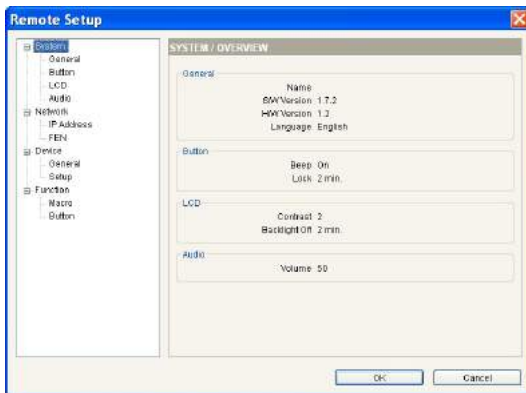
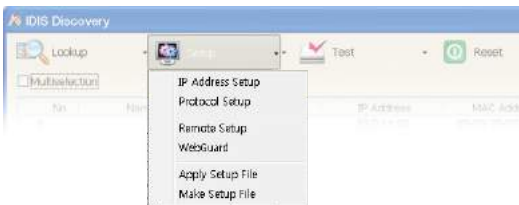
## Device

<b>General</b>	Setup Type	Selects the setup mode. Select <b>Basic</b> or <b>Advanced</b> when controlling devices via RS485 connection only, or select <b>Advanced</b> when controlling devices via network and RS485 connection. When selecting the Advanced mode, you can only register devices with an aid of the IDIS Discovery program.
	Port	Selects the device to control via RS485 connection and configure the RS485 port information for RS485 communication. If you want to configure the port information for PTZ cameras in Advanced mode, you must run the IDIS Discovery program. If the port information for PTZ cameras is different from each other, the cameras can only be controlled in Advanced mode but not in Basic mode.
<b>Setup</b>	Number of CAMs	Enters the number of connected cameras when controlling PTZ cameras via RS485 connection.
	485ID, Model	Sets the RS485 ID and model number for a PTZ camera for RS485 communication. The RS485 ID is used to distinguish the camera from others when controlling it with a network keyboard, so each must have a unique RS485 ID. Check the model number of the PTZ camera after seeing <b>Part 6 - Appendix &gt; PTZ Camera Model Numbers</b> .

# Part 5 - Remote Setup

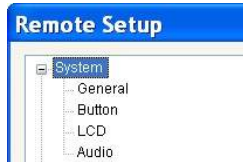
You can change all settings of a network keyboard remotely.

- 1 Run the IDIS Discovery program, select a network keyboard, and click the **Setup** icon on the Main screen.
- 2 Select **Remote Setup** from the Setup menu. Then the Remote Setup screen appears.



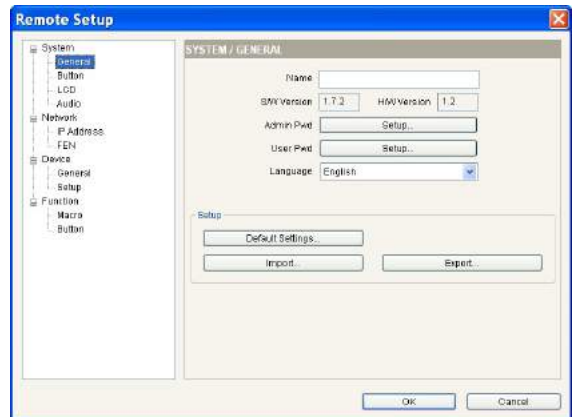
If you clicking a menu on the left of the Remote Setup screen, the current settings for that menu appear on the right. If you click a submenu under each menu, you can change the settings. To apply any changes and close the screen, click **OK**.

## System



You can change system information, import or export all settings, change the password, set up beep and lock functions for the network keyboard buttons, and adjust the audio volume.

## General

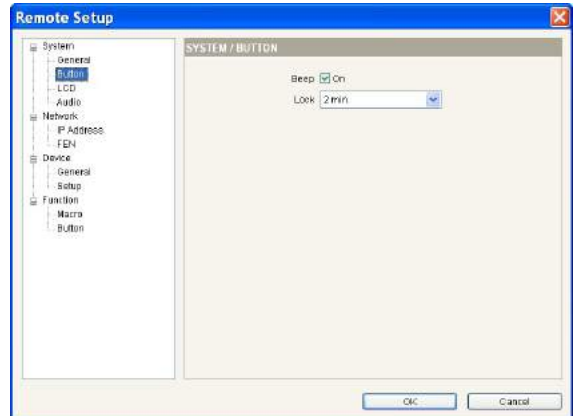


- **Name:** Enter the network keyboard name (up to 31 characters including spaces).
- **SW Version, HW Version:** These fields display the software and hardware versions of the network keyboard.
- **Admin Pwd:** Click to change the password (max. four digits) for access to the network keyboard and LCD menu setup. After entering the current password, you can enter a new password. Note that there is no default password.

- **User Pwd:** Click to change the password (max. four digits) for control of the network keyboard. After entering the current password, you can enter a new password. Note that there is no default password.
- **Language:** Select the language to be used during remote setup.
- **Setup**
  - **Default Setup:** Click to return all network settings to the original ones.
  - **Import Setup:** Click to apply the settings saved in .dat file format to the network keyboard. A setup screen appears to allow you to select the setup file. You can select whether or not to include network settings when the setup is applied. For more information about the network settings, see the Network menu.
  - **Export Setup:** Click to save the settings for the network keyboard in .dat file format. A setup screen appears to allow you to name the setup file.

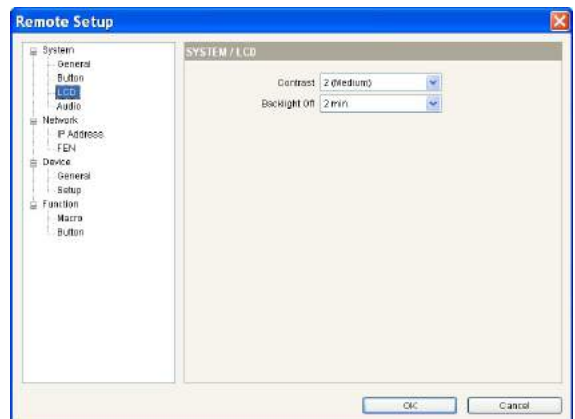
Do NOT check the Include Network Setup box while the network settings are used in another network keyboard. Otherwise, the connection to the network keyboard may not be made properly.

## Button



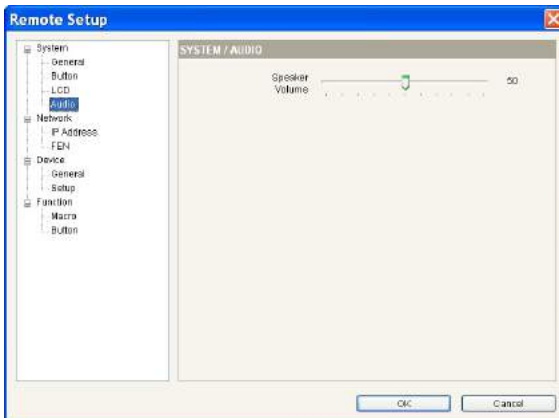
- **Beep:** Check the box to beep when pressing the buttons on the network keyboard.
- **Lock:** The buttons on the network keyboard will be locked after a preset time of inactivity. To unlock the buttons, the User password must be entered. This feature does not function if the User password is not set or the time is set to **Never**.

## LCD



- **Contrast:** Select the LCD screen contrast of the network keyboard from the drop-down list.
- **Backlight Off:** The LCD screen backlight turns off after a preset time of inactivity on the network keyboard. This feature does not function if the time is set to **Never**.

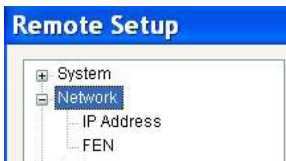
## Audio



Adjust the volume for audio input and output by using the slide bar.

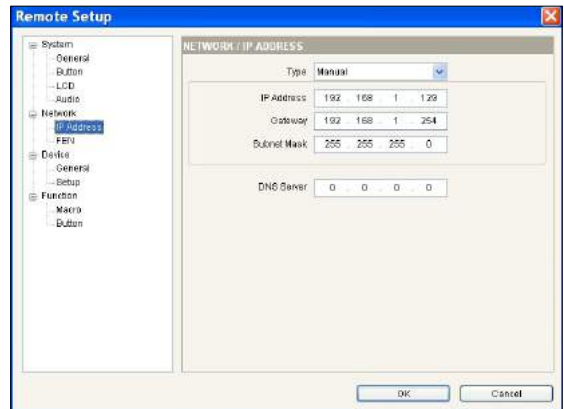
- Audio may not work properly if the network keyboard is performing other functions during two-way audio communication.

## Network



You can change the network settings or configure the FEN information.

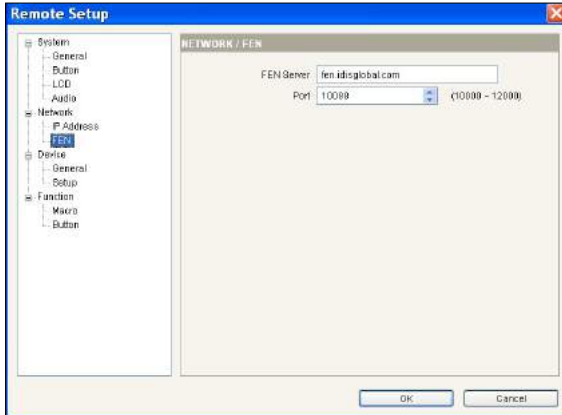
## IP Address



- **Type:** Select the type for network configuration. Ask your network provider for details about the network connection type and connection information for the network keyboard.
  - **Manual:** Select when the network keyboard is using a static IP address for network connection and set the LAN parameters manually.
  - **DHCP:** Select when the network keyboards are networked via DHCP (Dynamic Host Configuration Protocol). Click **OK** and a temporary IP address is automatically assigned to the network keyboard. The network keyboard will periodically generate a new IP address.
- **DNS Server:** Enter the IP address of the DNS server. If you configure the DNS server, the domain name of the server can be used instead of the IP address when the FEN server is used. Ask your Internet service provider for the IP address of the DNS server.

## FEN

If the devices use the FEN feature, enter the information on the FEN server for the device to be registered.



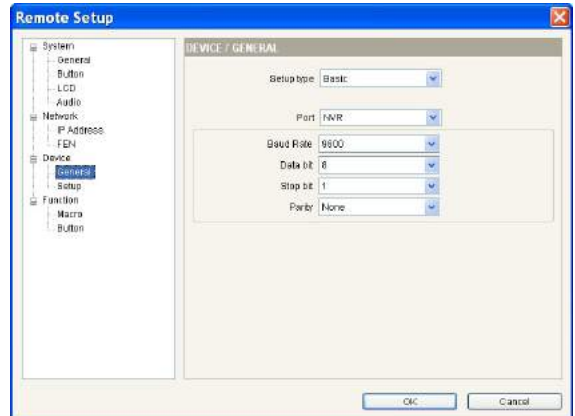
- **FEN Server:** Enter the IP address or domain name of the FEN server acquired from the device's network administrator. You can use the domain name instead of IP address if you set the DNS server during IP address setup.
- **Port:** Set the port number of the FEN server.

## Devices



You can set the setup mode and register devices with a network keyboard.

## General



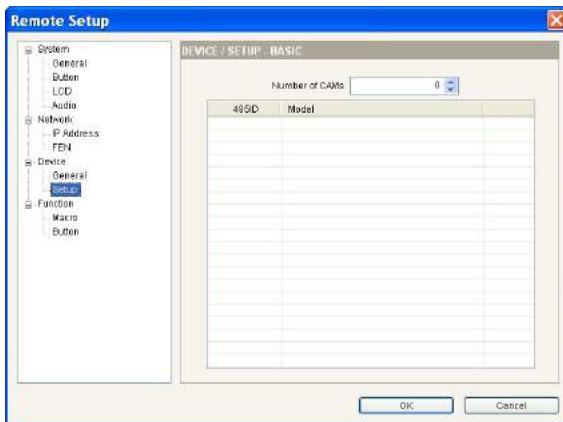
- **Setup type:** Select **Basic** or **Advanced** when controlling devices via RS485 connection only, or select **Advanced** when controlling devices via network and RS485 connection.
  - **Port:** Select the device to control via RS485 connection from the drop-down list and configure the port information for RS485 communication. If the PTZ cameras have different port information from each other, you must register the cameras in Advanced mode but not in Basic mode. For more information about registration in Advanced mode, see the following section.

## Setup

The setup screen varies depending on the setup type set in the **Device – General** setup.

### General – Basic Mode

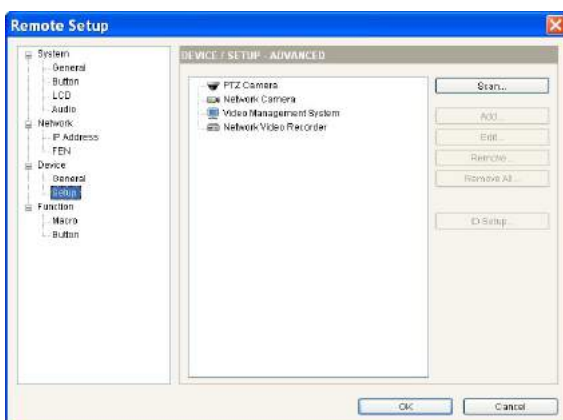
You can control devices only via RS485 connection when registering the devices in Basic mode.



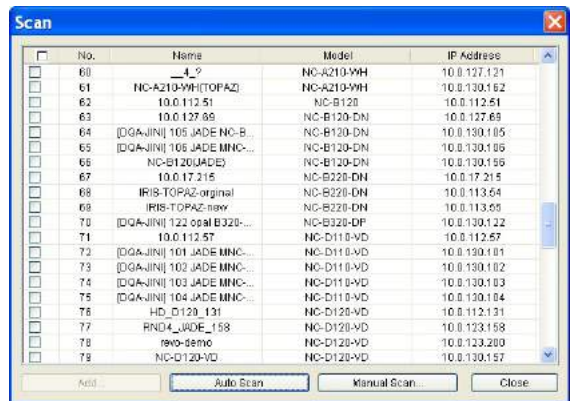
- **Number of CAMS:** Set the number of connected cameras.
- **485 ID:** Set the RS485 ID for each PTZ camera for RS485 communication. The RS485 ID is used to distinguish the camera from others for control with a network keyboard, so each must have a unique RS485 ID. You can change the RS485 ID by clicking the field and adjusting the number.
- **Model:** Click the field and select the model of the PTZ camera from the PTZ camera list.

### General – Advanced Mode

You can control devices via network and RS485 connection when the devices are registered in Advanced mode.



- **Scan, Add, Edit:** See below.
- **Remove, Remove All:** Select a device in the list and click **Remove** to delete it. Click **Remove All** to delete all devices from the list.



- **Scan:** Click to find and list the devices connected to the network (in case of network cameras only). If the device connects to the network using the mDNS (Multicast DNS) protocol, the device may not be scanned.
  - **Auto Scan:** Click to reload the list of devices networked via LAN.
  - **Manual Scan:** Click the button and enter the IP address of the device to check if the device is networked via WAN or if it is temporarily disconnected from the network.
  - **Add:** You can register the listed devices on the network keyboard. Check the devices in the list and click the button. Then the setup screen appears. Enter the User ID and password for access to the selected devices and click **OK**. Do not check the Apply to all box if the User ID and password of the selected devices are different from each other. The **OK** button changes to Next. Click **Next** and enter the connection information for each device. For more information about the setup, see the following section.



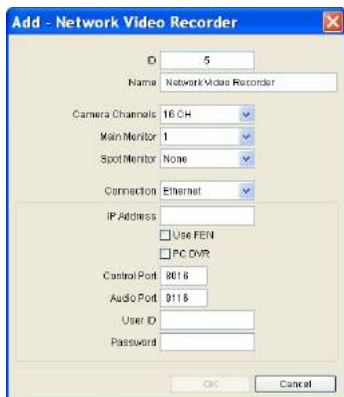
PTZ Camera



Network Camera



Video Management System



NVR (Network Video Recorder)

- **Add:** Select a device in the device list and click the button to register the device on the network keyboard. The setup screen appears to allow you to enter the connection information for the device.
  - **ID:** The network keyboard assigns the ID automatically when the device is registered, and you can change the ID. The ID is used to distinguish the device from others for control with the network keyboard, so each must have a unique ID.
  - **Name:** Set the device name for your reference.
  - **Protocol:** Select the protocol of the device (in case of network cameras only). If the device is not for Panasonic WV series models, select **Default**.
  - **Camera Channels:** Select the number of camera channels supported by the device.
  - **Main Monitors:** Select the number of main monitor outputs supported by the device. If the device does not support the secondary monitor, select **1**. If the device supports it, select **2**.
  - **Connection:** Select the device type for connection to the network keyboard and configure the settings.
- **RS485:** The RS485 ID of the PTZ camera is used to distinguish it from other cameras when controlling it with a network keyboard, so each must have a unique ID.
- **Ethernet:** Enter the Watch port or Control port set on the device in Control Port. Enter the Audio port set on the device in Audio Port. It is possible that the device shares a Watch port along with an Audio port. In such case, enter the Watch port for both Control Port and Audio Port.
- **Edit:** Select a device or monitor and the camera connected to the device in the list and click the button for modification.



## Monitor

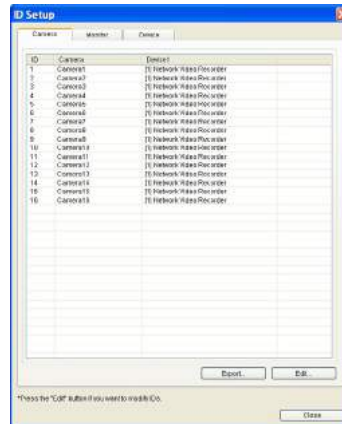


- **ID:** The network keyboard assigns the ID automatically when a device is registered, and you can change the ID. The ID is used to distinguish the monitor from others when selecting it with the network keyboard, so each must have a unique ID.

## Camera

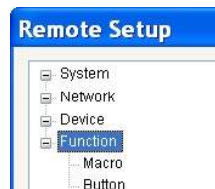


- **ID:** The network keyboard assigns the ID automatically when a device is registered, and you can change the ID. The ID is used to distinguish the camera from others when controlling it with the network keyboard, so each must have a unique ID. Click **OK**. Then a message box appears to confirm the existing ID. Click **OK** to complete the changes.
- **Name:** Set the camera name for your reference.
- **Type:** Set the type of the camera. Select **Fixed** if the camera is not a PTZ camera. Select **PTZ Camera** if the camera is a PTZ camera.



- **ID Setup:** Click the button to edit the ID or save the ID setting of a device, monitor or camera connected to the device in the list. The list of devices connected to the network keyboard or the monitors or cameras connected to the devices appears in each tab.
- **Export:** Saves the information in the list as a file.
- **Edit:** Allows you to edit the preset ID.

## Functions

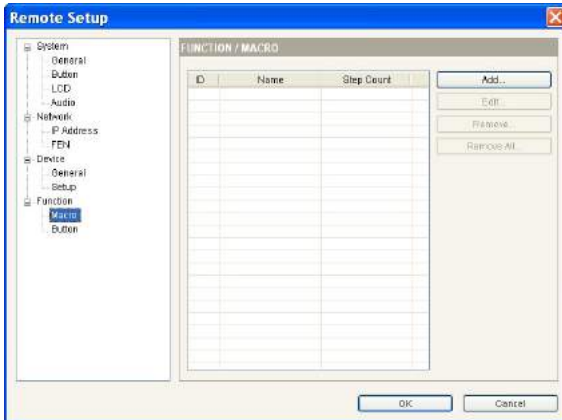


You can set up a macro function and function buttons.

## Macro



A macro is a preset instruction that calls a complete series of commands to perform a particular task.



- **ID:** Displays the macro ID.
- **Name:** Displays the macro name.
- **Step Count:** Displays the number of actions registered on the macro.
- **Add:** See below.
- **Edit:** Select a macro in the list and click the button to edit the settings.
- **Remove / Remove All:** Select a macro in the list and click **Remove** to delete it. If you click **Remove All**, all macros in the list are deleted.
- **Add:** Click to register a macro. Then the setup screen appears.

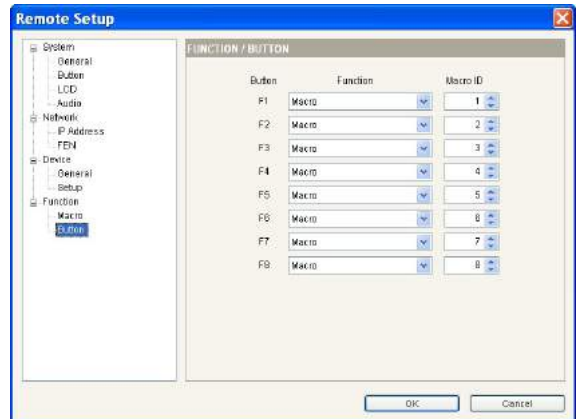


- **ID:** Assign a unique ID from 1 to 100 to the macro. When giving "macro ID" → **MACRO** command, the network keyboard performs the actions registered on the macro.
- **Name:** Enter the macro name.

- **No.:** Displays the sequences of the operations in the macro. The network keyboard takes actions based on the sequence number in the list when performing the macro.
- **Button:** Double click the field and click the buttons on the network keyboard image on the left to assign the operation to perform.
- **Dwell Time:** Enter the dwell time (seconds) for the action to last.

Generated macros can be used in other macros. In the network keyboard image, select the macro ID to add to a macro and press the **MACRO** button.

## Button



- **Button:** Displays the function numbers of the network keyboard.
- **Function:** Select the function to perform when pressing the function button. If you select **Macro**, it allows the function button to perform the macro. If you select **PTZ CTRL**, it allows the function button to perform the control feature when controlling a Fastrax PTZ camera.
- **Macro ID:** Select a macro ID if the macro is associated with the function button. If you press the function button on the network keyboard, the preset macro is performed.

# Part 6 - Appendix

















## Troubleshooting

Symptom	Possible Solution
<b>A device cannot be controlled.</b>	<ul style="list-style-type: none"><li>• Check the connection. When controlling the device via RS485 connection, the device must be properly connected to the RS485 port on the network keyboard. When controlling the device via network connection, both the device and the network keyboard must be properly connected to the network.</li><li>• Check whether the device is registered on the network keyboard properly. To control the device in Basic mode, the device must have been registered in Basic mode. To control the device in Advanced mode, the device must have been registered in Advanced mode.</li></ul>
<b>A PTZ camera cannot be controlled.</b>	<ul style="list-style-type: none"><li>• Check the PTZ camera settings in the NVR if the PTZ camera is connected to a NVR.</li><li>• Check whether the PTZ camera is properly registered on the network keyboard if the PTZ camera is directly connected to the network keyboard.</li><li>• Check the camera settings. The type of the camera must have been set to <b>PTZ Camera</b>. (On the IDIS Discovery program: <b>Setup &gt; Remote Setup &gt; Device &gt; Setup &gt; Type of camera: PTZ Camera</b>)</li></ul>
<b>Cannot connect to the IDIS Discovery program because of lost or incorrect password.</b>	<p>If you lost the password, perform the factory reset and customize all settings again. The factory reset function returns all the settings including network settings to the factory defaults. Write down and store the password in a safe place so that you may not go through this process again.</p>

## Buttons



























- Buttons work correctly only when the device supports the functions and it is registered on the network keyboard, and the setup is proper.
- Operating wise, “→” indicates that the buttons are pressed sequentially, and “&” indicates that the buttons are pressed at the same time.
- If the device is the video management system, the buttons function differently as the explanation below. For more information about the control buttons, refer to the operation manual of the video management system.




















## Operation Commands

Button	Designation	Operation
	Number (1 to 9)	<ul style="list-style-type: none"> <li>• Device number or ID → <b>MON</b>, <b>PANE</b>, <b>DEV</b>, <b>CAM</b> or <b>MACRO</b> : Selects a monitor, pane, device or camera to control, or macro to perform.</li> </ul>
	Number (0)	<ul style="list-style-type: none"> <li>•  → <b>DEV</b> → <b>!</b> : Starts panic recording for all camera channels of all devices.</li> <li>•  → <b>DEV</b> → <b>SHIFT</b> &amp; <b>!</b> : Stops panic recording for all camera channels of all devices.</li> <li>•  → <b>DEV</b> → <b>SHIFT</b> &amp;  : Deactivates alarm out for all alarm-out channels of all devices.</li> </ul>
	Shift	<ul style="list-style-type: none"> <li>• <b>SHIFT</b> → Button : Performs the secondary function for the buttons that support two functions.</li> <li>• <b>SHIFT</b> &amp; <b>ESC</b> : Locks the network keyboard buttons.</li> <li>• <b>SHIFT</b> &amp;  : Enters into the LCD menu.</li> </ul>
	ESC	<ul style="list-style-type: none"> <li>• <b>ESC</b> : Cancels a command during its operation or returns to the previous menu during menu configuration.</li> </ul>
	Monitor	<ul style="list-style-type: none"> <li>• Monitor ID → <b>MON</b> : Selects the entered monitor.</li> </ul>
	Pane	<ul style="list-style-type: none"> <li>• Pane No. or ID → <b>PANE</b> : Selects the entered pane.</li> </ul>
	Device	<ul style="list-style-type: none"> <li>• Device No. or ID → <b>DEV</b> : Allows you to control the entered device.</li> </ul>
	Camera	<ul style="list-style-type: none"> <li>• Camera No. or ID → <b>CAM</b> : Allows you to control the entered camera.</li> </ul>
	Macro	<ul style="list-style-type: none"> <li>• Macro ID → <b>MACRO</b> : Performs the entered macro.</li> </ul>
	- / +	<ul style="list-style-type: none"> <li>• Selects the previous or next monitor, pane, device or camera during command operation.</li> <li>• Navigates through setup menus or adjusts numeric values during menu configuration.</li> </ul>
	Function (1 to 8)	<ul style="list-style-type: none"> <li>• Performs a preset function.</li> </ul>


## Controls for PTZ Camera














































- ✓ • Depending on the PTZ camera specification, some functions may not work. For more information about each feature, refer to the operation manual of the PTZ camera.
- When a PTZ camera is connected to another device, some functions may not be supported depending on the specification and version of the device.









Button	Designation	Operation
 	Set Preset	<ul style="list-style-type: none"> <li>• “Preset No.” →  (hold the button): Sets the preset position by assigning the preset number to the current position.</li> </ul>
	View Preset	<ul style="list-style-type: none"> <li>• “Preset No.” →  : Moves the PTZ camera to the position set for the preset number.</li> <li>•  → <b>CAM</b> → “Preset No.” →  : Moves all PTZ cameras to the position set in the preset number (Fastrax model only). For this function to work properly, the port information of the PTZ camera for RS485 communication must be set to the same as the one for the network keyboard (9600/8/1/None in Advanced mode).</li> </ul>
 	Focus Near	<ul style="list-style-type: none"> <li>• Focuses on a near or far image.</li> </ul>
	Focus Far	
 	Iris Open	<ul style="list-style-type: none"> <li>• Opens or closes the iris of a camera lens.</li> </ul>
	Iris Close	
	Auto Pan	<ul style="list-style-type: none"> <li>•  : Performs the auto pan set for number 1.</li> <li>• “Auto Pan No.” →  : Performs the auto pan set for the selected number.</li> <li>• <b>SHIFT</b> &amp;  : Stops the auto pan.</li> </ul>
	Tour	<ul style="list-style-type: none"> <li>•  : Performs the tour set for number 1.</li> <li>• “Tour No.” →  : Performs the tour set for the selected number.</li> <li>• <b>SHIFT</b> &amp;  : Stops the tour.</li> </ul>
	Pattern	<ul style="list-style-type: none"> <li>•  : Performs the pattern set to number 1.</li> <li>• “Pattern No.” →  : Performs the pattern set to the selected number.</li> <li>• <b>SHIFT</b> &amp;  : Stops the pattern.</li> </ul>
	Home	<ul style="list-style-type: none"> <li>• Performs the home function.</li> </ul>
	Menu	<ul style="list-style-type: none"> <li>•  : Displays the PTZ menu.</li> <li>• <b>SHIFT</b> &amp;  : Closes the PTZ menu.</li> </ul>

Button	Designation	Operation
	Light	<ul style="list-style-type: none"> <li>• : Performs the light function.</li> <li>•  &amp; : Releases the light function.</li> <li>•  →  → : Sets all cameras to night shot (B&amp;W) mode (Fastrax model only). For this function to work properly, the port information of the PTZ camera for RS485 communication must be set to the same as the one for the network keyboard (9600/8/1/None in Advanced mode).</li> <li>•  →  →  → : Sets all cameras to normal (Color) mode (Fastrax model only). For this function to work properly, the port information of the PTZ camera for RS485 communication must be set to the same as the one for the network keyboard (9600/8/1/None in Advanced mode).</li> </ul>
	Auxiliary	<ul style="list-style-type: none"> <li>• : Performs the auxiliary function.</li> <li>•  &amp; : Releases the auxiliary function.</li> </ul>
	Alarm Reset	<ul style="list-style-type: none"> <li>• Resets the alarm.</li> </ul>
	Joystick	<ul style="list-style-type: none"> <li>• Stick: Controls the pan and tilt.</li> <li>• Shuttle ring: Controls the zoom.</li> </ul>
	Jog Dial	<ul style="list-style-type: none"> <li>• Controls the zoom when operating with the joystick.</li> </ul>
	Shuttle Ring	<ul style="list-style-type: none"> <li>• Controls the zoom when operating with the joystick.</li> </ul>

## Controls for Video Management System, NVR and Network Camera

 The buttons work only when a device is selected and it supports the functions. For more information about each function, refer to the operation manual of the device.

Button	Designation	Operation
	Panic Recording On	<ul style="list-style-type: none"> <li> : Starts panic recording for all camera channels of the device.</li> <li> →  →  : Starts panic recording for all camera channels of all devices registered on the network keyboard.</li> </ul>
	Panic Recording Off	<ul style="list-style-type: none"> <li> &amp;  : Stops panic recording for all camera channels of the device.</li> <li> →  →  &amp;  : Stops panic recording for all camera channels of all devices registered on the network keyboard.</li> </ul>
	Alarm Out On	<ul style="list-style-type: none"> <li>"Alarm-out device No." →  : Activates the alarm out for the device.</li> </ul>
	Alarm Out Off	<ul style="list-style-type: none"> <li>"Alarm-out device No." →  &amp;  : Deactivates the alarm out for the device.</li> <li> &amp;  : Deactivates all alarm outs for the device.</li> <li> →  →  &amp;  : Deactivates all alarm outs for all devices registered on the network keyboard.</li> </ul>
	Display	<ul style="list-style-type: none"> <li> : If you press the button repeatedly, the screen layout changes based on the device configuration.</li> <li>"Layout No." →  : Displays the video of the selected screen layout (No. 1: full, No. 2: 2x2, No. 3: 3+3, No. 4: 3x3, No. 5: 2+8, No. 6: 1+12, No. 7: 4x4, No. 8: PIP, No. 9: 1+5 and No. 10: 1+12).</li> </ul>
	Cameo	<ul style="list-style-type: none"> <li> &amp;  : Enters into the cameo mode.</li> </ul>
	Group	<ul style="list-style-type: none"> <li> : Moves to the next camera group.</li> <li>"Group No." →  : Changes the screen to the selected camera group.</li> </ul>
	Sequence	<ul style="list-style-type: none"> <li> &amp;  : Performs sequence monitoring.</li> </ul>
	Freeze	<ul style="list-style-type: none"> <li> : Freezes the current live image on the screen.</li> </ul>
	Zoom	<ul style="list-style-type: none"> <li> &amp;  : Zooms in the current live image on the screen.</li> </ul>
	Search	<ul style="list-style-type: none"> <li> : Searches the video recorded on the device.</li> </ul>
	Triplex	<ul style="list-style-type: none"> <li> &amp;  : Enters into triplex mode.</li> </ul>
	Fast Backward Play	<ul style="list-style-type: none"> <li> : Plays the video backward at high speed in playback mode.</li> </ul>
	Backward Step	<ul style="list-style-type: none"> <li> &amp;  : Plays video backward image by image in playback mode.</li> </ul>
	Play, Pause	<ul style="list-style-type: none"> <li> : Plays the video. Pressing the button during playback pauses playing the video.</li> </ul>

Button	Designation	Operation
	Fast Forward Play	<ul style="list-style-type: none"> <li>▶▶ : Plays video forward at high speed in playback mode.</li> </ul>
	Forward Step	<ul style="list-style-type: none"> <li>SHIFT &amp; ▶▶ : Plays video forward image by image in playback mode.</li> </ul>
	Clip Copy	<ul style="list-style-type: none"> <li>⏏ : Performs the one-touch clip copy in live monitoring mode and general clip copy in playback mode.</li> <li>SHIFT &amp; ⏏ : Performs A-B (section) clip copy in playback mode.</li> </ul>
	Bookmark	<ul style="list-style-type: none"> <li>🔖 : Adds the current playback point to the bookmark list.</li> <li>"Bookmark No." → 📄 : Moves to the selected bookmark point.</li> </ul>
	Group Monitoring	<ul style="list-style-type: none"> <li>"Group No." → 📄 : Displays the video for the selected camera group.</li> </ul>
	Enable Speaker/Mic	<ul style="list-style-type: none"> <li>🔊 : Plays audio from the remote site through the speaker when controlling a camera. To disable the function, press the button again.</li> <li>SHIFT &amp; 🔊 : Sends audio to the remote site through the microphone when controlling a camera. To disable the function, press the button again.</li> <li>Receiving and sending audio is available only when controlling a device that supports two-way audio communication via network connection. This feature may not work properly while the network keyboard is performing other functions during two-way audio communication.</li> </ul>
	Menu	<ul style="list-style-type: none"> <li>Displays the device's menu and allows you to change its settings.</li> </ul>
	Enter Button ( ↵ )	<ul style="list-style-type: none"> <li>Selects an item or completes the entry that you have made in setup mode.</li> <li>Toggles the zoom size in zoom mode while controlling a NVR.</li> </ul>
	Arrow Buttons	<ul style="list-style-type: none"> <li>Navigates through setup menus or adjusts numeric values in setup mode.</li> <li>◀▶ : Changes the layout group while controlling a NVR.</li> <li>▲▼ : Changes the location of the PIP in PIP display mode and increases or decreases the numeric value in setup mode while controlling a NVR.</li> </ul>
	Jog Dial	<ul style="list-style-type: none"> <li>Functions only when controlling a NVR.</li> <li>Changes the zoom size in zoom mode. If you turn the jog dial clockwise or counterclockwise, the zoom size is increased or decreased.</li> <li>Changes the PIP screen size in PIP mode. If you turn the jog dial clockwise when the PIP screen is in the left or counterclockwise when the PIP screen is on the right, the PIP screen gets larger.</li> <li>Increases or decreases the numeric value in setup mode.</li> <li>Plays the video forward or backward image by image by turning the jog dial clockwise or counterclockwise when the video has been paused.</li> </ul>
	Shuttle Ring	<ul style="list-style-type: none"> <li>Functions only when controlling a NVR.</li> <li>Plays the video in playback mode. The shuttle ring is spring loaded so when released, it returns to the center position. If you turn the ring clockwise or counterclockwise, the video is played forward or backward. The playback speed varies depending on the extent of turning: fast forward and rewind.</li> </ul>



## PTZ Camera Model Numbers

No.	Type	No.	Type
1	IRX-100 (IDIS)	29	ZC-SD622J (CBC)
2	WJ-SX550A (Panasonic)	30	Siemens SCU (Siemens)
3	SpeedDome (HiTron)	31	PTC-200C/CVAS (ELMO)
4	D-protocol (Pelco)	32	DRX-500 (Dongyang Unitech)
5	Receiver/MPU (Sungjin)	33	GHSD-7425 Series (GSP)
6	KTD-312 (Kalatel)	34	GHSD-7344 Series (GSP)
7	Samsung Dome (Samsung)	35	GHSD-7448 Series (GSP)
8	CRR-1660s (Fine)	36	VisionDome (360Vision)
9	CRD-J6416 (Chilsung)	37	Vicon (Vicon)
10	MRX-1000 (Samsung)	38	HSDN-251 (Honeywell)
11	G3 Basic AutoDome (Philips)	39	HDC-655 (Honeywell)
12	Orbiter Microsphere (Ademco video)	40	Pacom 2036 (Pacom)
13	Delta Dome II/Ultra IV (Sensormatic)	41	CDC 2500 (Costar)
14	Spectra Dome (Pelco)	42	VRX-2201 (Inter-M)
15	KD6 (Ultrak)	43	DY-255RXC (Dongyang)
16	SPD 1600 (Samsung Techwin)	44	VC-C50i (Canon)
17	Zoom Camera (Samsung)	45	DMP-1223 (Tokina)
18	WV-CS850/854 (Panasonic)	46	LPT-A100L (LG)
19	GRU604A (LG Honeywell)	47	SRX-100B (Samsung Techwin)
20	PIH-717 (Linlin)	48	22x AF Zoom (Hitron)
21	HSD-25X (LG Honeywell)	49	SIC722V (Costar)
22	Fastrax (HiTron)	50	Dennard2060 (Dennard)
23	KD6 Z-Series (Ultrak)	51	PTC-250C (ELMO)
24	VC-C4 (Canon)	52	ORX_1000 (SysMania)
25	TK-S576 (JVC)	53	NOVUS-C
26	Power Controller (Dongyang)	54	CRX-1401 (ERAESEEDS)
27	CDC2400 (DynaColor)	55	Fastrax2 (HiTron)
28	Ultra VI (Sensormatic)	56	Solaris
57	C-CC501 (TOA)	64	C-CC501 (TOA)

No.	Type	No.	Type
58	LG Speed Dome	65	PTC-1000 (ELMO)
59	PTC-400 (ELMO)	66	Remote PTZ (IDIS)
60	CCDA (Siemens)	67	Fastrax-IIE (HiTron)
61	HRX-1000 (Honeywell)	68	AUTODOME (BOSCH)
62	GSD series(G4S)	69	N-Control (NOVUS)
63	A730HM (LG)	70	WV-CW970/CS950 (Panasonic)

## System Upgrade Error Codes

When an error occurs during software upgrade, see the following error codes.

No.	Description	No.	Description
0	Unknown error	302	Remote upgrade is not authorized.
1	File version error	303	Saving remote package failed.
3	Software version error	304	Remote upgrade was cancelled by the user.
4	Kernel version error	400	USB device mounting failed.
101	The upgrade file was not found.	401	Reading upgrade package on the USB device failed.
102	Extracting package failed.	402	Copying upgrade package from the USB device failed.
105	Invalid package	403	USB device is not connected.
300	Remote connection failed.	404	USB device is currently in use.
301	Remote network error	405	The file system is not supported.

## Specifications

INPUTS/OUTPUTS	
<b>Network Connection</b>	10M/100M/1Gbps Ethernet
<b>Audio In</b>	1 Microphone
<b>Audio Out</b>	1 line out

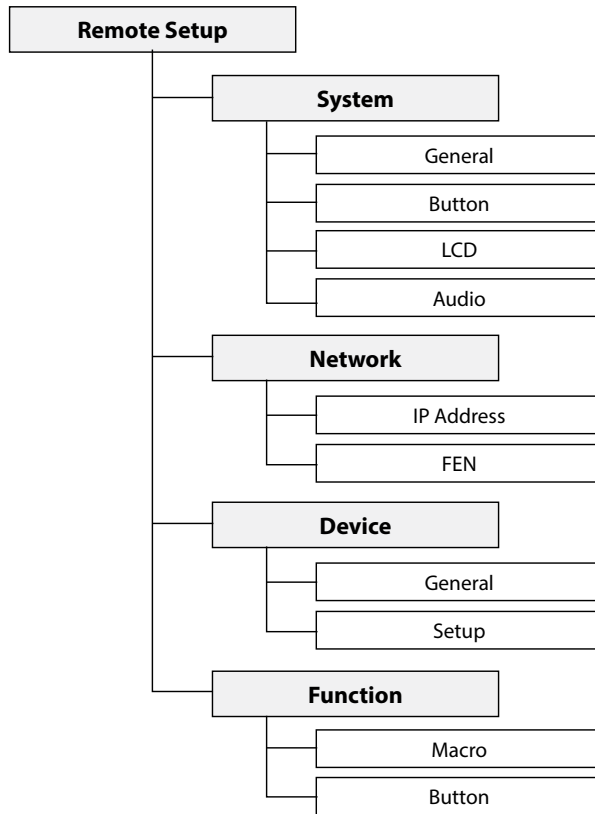
CONNECTORS	
<b>Audio In/Out</b>	Mono/Stereo
<b>Ethernet Port</b>	RJ-45
<b>RS-485 PTZ Serial Port</b>	Terminal block
<b>RS-485 NVR Serial Port</b>	Terminal block
<b>USB Port</b>	1 x USB 2.0 (5V, less than 0.5A) 1 x USB 3.0 (5V, less than 0.5A)

GENERAL	
<b>External Dimensions (W x H x D)</b>	14.8" x 3.7" x 7.0" (376.9 x 95 x 177.6 mm)
<b>Packaging Dimensions (W x H x D)</b>	17.9" x 6.3" x 10.0" (455 x 160 x 255 mm)
<b>Weight (Main Unit)</b>	2.64 lbs. (1.2 kg)
<b>Weight (Packaging)</b>	4.71 lbs. (2.1 kg)
<b>Working Temperature</b>	32 to 104°F (0 to 40°C)
<b>Operating Humidity</b>	0 to 90%
<b>Power Input</b>	DC 48V, 1A, PoE (IEEE 802.3af class 0)
<b>Power Consumption</b>	48V $\overline{\square}$ , 0.18A, 8.64W, PoE (IEEE 802.3af class 0)
<b>Certifications</b>	FCC, CE

Specifications are subject to change without prior notice.

## Map of Screens (Remote Setup)





**IDIS Co., Ltd.**

For more information, please visit at  
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