



# Network Video Recorder

Quick Guide

*IR-100*





**WARNING**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**WARNING:** 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.

### COMPLIANCE NOTICE OF FCC:

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.

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 depending on whether or not the source is publicly available under a license policy. Go to Client Menu - About page for more information. This product includes software developed by the University of California, Berkeley and its contributors, and software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>). Also, this product includes cryptographic software written by Eric Young ([eay@cryptsoft.com](mailto:eay@cryptsoft.com)), and software written by Tim Hudson ([tjh@cryptsoft.com](mailto:tjh@cryptsoft.com)).

## Important Safeguards

### 1. Read Instructions

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

### 2. Keep Instructions

The safety and operating instructions should be kept 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. 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.

### 7. Ventilation

Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to ensure reliable operation of the equipment and to protect it from overheating. These openings must not be blocked or covered. Do not block these openings or allow them to be blocked by placing the equipment on a bed, sofa, rug, or bookcase. Ensure that there is adequate ventilation and that the manufacturer's instructions have been adhered to.

### 8. Power Sources

This equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power, please consult your equipment dealer or local power company. You may want to install a UPS (Uninterruptible Power Supply) system for safe operation in order to prevent damage caused by an unexpected power stoppage. Any questions concerning UPS, consult your UPS retailer.

### 9. Power Cords

Operator or installer must remove power and other 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. Telnet Communication Cable

Caution: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

### 19. 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..

Avertissement: risque d'explosion en cas d'utilisation d'une batterie de type incorrect. Le remplacer uniquement par un type identique ou équivalent. Mettre les batteries usées au rebut conformément aux instructions. La batterie ne doit pas être exposée à une source de chaleur excessive, telle que le soleil, le feu, ou analogue.

### 20. Elevated Operating Ambient

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 maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.

### 21. Reduced Air Flow

Installation of the equipment in a rack should be such that the amount of air flow 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 achieved due to uneven mechanical loading.

### 23. Circuit Overloading

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

### 24. Reliable Earthing

Reliable earthing 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. user of power strips).

## **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.

### **WARNING**

**Hazardous moving parts**

**Keep away from moving fan blades**

### **AVERTISSEMENT**

**Pièces mobiles dangereuses**

**Se tenir éloigné des pales de ventilateurs mobiles**



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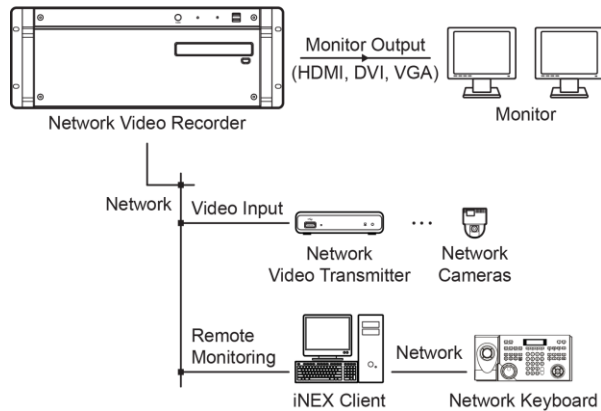
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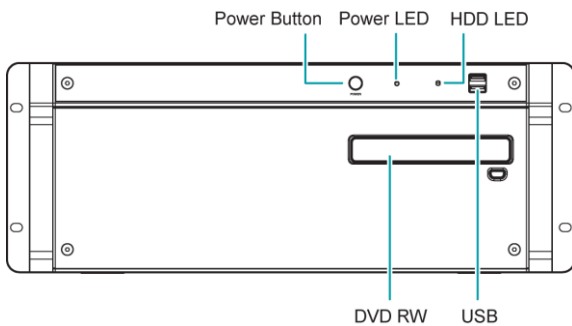


## Chapter 1 — Product Information

### 1.1 System Diagram

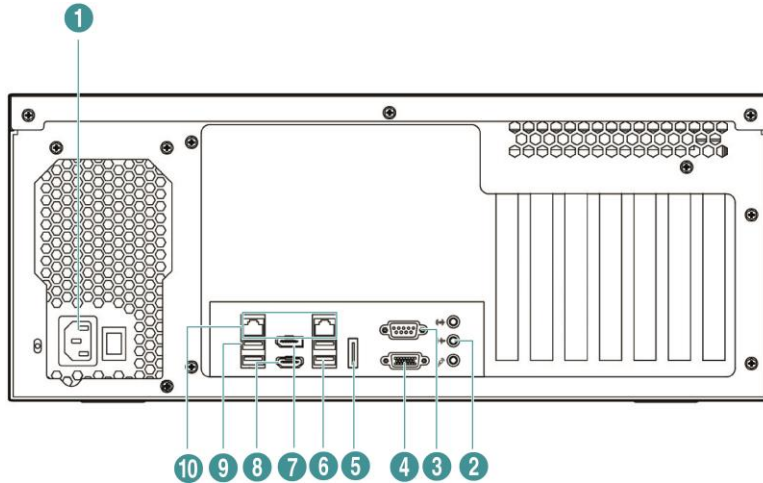


### 1.2 Front Panel



- **Power Button:** Turn the system on or off.
- **Power LED:** Is lit when the unit is turned on.
- **HDD LED:** Flickers when the unit accesses to the hard disk drive.
- **DVD RW:** Use to export recorded data to the DVD RW media.
- **USB:** Connect USB devices such as a mouse, keyboard, USB storage device or printer.

## 1.3 Rear Panel



- |            |             |         |               |           |
|------------|-------------|---------|---------------|-----------|
| ① Power In | ② Audio Out | ③ RS232 | ④ VGA (D-Sub) | ⑤ E-SATA  |
| ⑥ USB 3.0  | ⑦ DP        | ⑧ HDMI  | ⑨ USB 2.0     | ⑩ Network |

- **Power In:** Connect a power cord.
- **Audio Out:** Connect an amplifier (Line-out). The NVR does not have amplified audio output, so you will need a speaker with an amplifier.
- **RS232:** Connect a remote control device for RS232 communication.
- **VGA (D-Sub):** Connect an HD (high-definition) PC monitor which supports a D-Sub interface. Connect a monitor before turning on the system. Video might not be displayed on the monitor when connecting a monitor after turning on the system.
- **E-SATA:** Connect an external hard disk drive which supports an eSATA interface.
- **USB:** Connect USB devices such as a mouse, keyboard, USB storage device or printer.
- **DP:** Connect an HD (high-definition) PC monitor which supports a DP interface.
- **HDMI:** Connect an HD (high-definition) PC monitor which supports an HDMI interface.
- **Network :** Connect a CAT 5e or higher cable with an RJ-45 connector.

**NOTE:** The location of ports in slots can be different from the image above. Refer to *Appendix 4 — Connector Pin Outs* for connection of the ports located in slots.

**NOTE:** Windows may not operate properly when using the USB connectors on the front panel of the NVR, depending on the model type of the USB device. In this case, connect the USB device after Windows boots properly or use the USB connectors located on the rear panel.

**NOTE:** If the LAN 1 and LAN 2 is connected to the same network, the system may malfunction.

**NOTE:** When mounting the NVR on a rack, comply with the following instructions.

- Ensure that the rack inside is not sealed.
- Ensure the air is circulated through the inlet/outlet.
- If you pile up NVRs or other rack-mount devices, secure room for ventilation or install a vent.
- For natural air convection, place the inlet at the bottom of the rack and the outlet on top.
- It is strongly recommended that a fan motor is installed at the inlet and the outlet for air circulation and fit a filter at the inlet to screen dust or foreign substances.
- Maintain the temperature inside the rack or surrounding areas between 41°F to 104°F (5°C to 40°C).

## 1.4 Turning On the NVR

Press the power button located on the front panel to turn the system on.

Enter your user ID and password. The default user ID is admin and default password is 12345678. You can change the user ID and password in the User menu.

Refer to the IDIS Solution Suite User's Manual for details about operation.

**NOTE:** Connect a monitor before turning on the system. Video might not be displayed on the monitor when connecting a monitor after turning on the system.

## 1.5 Turning Off the NVR

In order to completely shut down the system, plug out the power cord on the back panel after turning off the power. The system will automatically restart if the system has been shut down improperly.

## Appendix 1 — Troubleshooting

Following are some frequent problems and solutions related to the NVR. Read this section before calling the dealer or installer.

**Problem: There is no image on the screen.**

**Solution:** Video might not be displayed on the monitor when connecting a monitor after turning on the system. Reboot the NVR.

**Problem: Sometimes the screen is black.**

**Solution:** There is a problem with the Main Board. Reboot the NVR. If it happens often, call your dealer or installer.

## Appendix 2 — HDD Compatibility Model

Some hard disks may not function properly when mounted on to this product. Refer to the compatibility chart below before mounting any additional hard disk on to the product.

Hard disk compatibility chart is subject to change without notice. Contact your retailer for the latest compatibility chart.

### SATA II (3.0 Gb/s)

Storage	Manufacturer	Model	Note
2TB	TOSHIBA	HDD SATA,DT01ACA200,2TB,7200RPM	
	Western Digital	HDD SATA,WD20PURX-64P6ZY0,2TB,5400RPM	
3TB	TOSHIBA	HDD SATA,DT01ACA300,3T,7200RPM	
	Western Digital	HDD SATA,WD30PURX-64P6ZY0,3TB,5400RPM	

Connect SATA II (3.0 Gb/s) hard disks to SATA 3, SATA 4, SATA 5, SATA 6 ports of the NVR.

### SATA III (6.0 Gb/s)

Storage	Manufacturer	Model	Note
2TB	TOSHIBA	HDD SATA,DT01ACA200,2TB,7200RPM	
	Western Digital	HDD SATA,WD20PURX-64P6ZY0,2TB,5400RPM	
3TB	TOSHIBA	HDD SATA,DT01ACA300,3T,7200RPM	
	Western Digital	HDD SATA,WD30PURX-64P6ZY0,3TB,5400RPM	

## Appendix 3 — Specifications

CONNECTORS	
Monitor Output	1 HDMI, 1 DP, 1 VGA
Audio In	1 AUX connector(3.5Φ )
Audio Out	1 AUX connector(3.5Φ )
Ethernet Port <sup>i</sup>	2 RJ-45 (1 Gbps Ethernet)
eSATA Port	1 eSATA
RS232 Serial Port	1 DB9 (P)
USB Port	USB 2.0 connectors: 2 Front, 2 Rear, USB 3.0 connectors: 2 Rear

<sup>i</sup>The network connector is not designed to be connected directly with cable or wire intended for outdoor use.

Specifications are subject to change without notice.

STORAGE	
Primary Storage	SATA hard disk drive (Expandable up to 5)
Secondary Storage	eSATA HDD
Backup Storage	DVD RW

GENERAL	
Dimensions (W x H x D)	17.3" x 7.0" x 18.2" (440mm x 177mm x 462mm)
Unit Weight	33.7 lbs. (15.3kg)
Operating Temperature	41°F to 104°F (5°C to 40°C)
Operating Humidity	0% to 90%
Power	AC 100-240V~, 50/60 Hz, 3.0-1.5A
CPU	Intel Skylake I7-6700, 3.4GHz
RAM	DDR4 PC-17000, 8GB
Approvals	FCC, CE, CB, UL

Specifications are subject to change without notice.