



DC-Z Series


Installation Manual

DC-Z1163



DC-Z1263

Before reading this manual



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

-  • The manufacturer will not be held responsible for any product damage resulting from the use of unauthorized parts and accessories or from the user's failure to comply with the instructions contained in this manual.
- The information in this document is believed to be accurate as of the date of publication even though explanation about some functions may not be incorporated. The manufacturer is 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.
- It is recommended that first-time users of this network camera 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 Symbols

Symbol	Type	Description
	Warning	An important instruction or set of important instructions that can lead to severe injury or even death if not followed.
	Caution	An instruction or set of instruction that can lead to personal injury and/or property damage if not followed.

In-Text

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

Safety Precautions

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.

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. Placing and Accessories

Do not place this equipment on an wall or ceiling that is not strong enough to sustain the camera. 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.

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 Cord

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

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. 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. If thunder or lightning is common where the equipment is installed, use a surge protection device.

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

14. Replacement Parts

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

15. Safety Check

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

16. Field Installation

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

17. Correct Batteries

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

18. Tmra

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

FCC Compliance Statement

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

WARNING: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT. THIS CLASS OF DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE CAUSING EQUIPMENT REGULATIONS.

WEEE (Waste Electrical & Electronic Equipment)

Correct Disposal of This Product

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



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

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

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

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

This product contains software built partially on open-source content. Codes for the corresponding open-source content are available for download. For more information, refer to the software CD (OpenSourceGuide\OpenSourceGuide.pdf) or the open source guide accompanying this operation manual.

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Part 1 – Introduction

Product Features

DC-Z1163 / DC-Z1263 is an IP-based network camera that compresses and transmits video over ethernet. You can use the IDIS Discovery program to change network camera settings or the IDIS Solution Suite Compact program to manage multiple network cameras. In addition, the embedded web server (IDIS Web) lets you remotely view live video or scan recorded video using a web browser. Alternatively, you can use the provided remote access program to manage network cameras and view/record video.



In this operation manual, the term **Remote System** refers to the computer on which the remote program (IDIS Solution Suite Compact or IDIS Web) is running.

- Supports DirectIP mode working with a DirectIP™ NVR that allows users to simply set up all required configurations without a PC
- Supports ONVIF protocol (Core specification version 2.4.0)
- Multi-streaming for high-resolution and high-quality video monitoring and simultaneous recording in real-time as well as flexible configurations for those
- Supports H.264 video compression and M-JPEG still image compression algorithms
- Supports 4-stage video compression rate and multiple compression resolutions
- Bidirectional audio communication support for remote audio dialog
- Video stream buffering to counter pre-/post-event buffering and network delays for improved network recording reliability
- Remote monitoring via web browser or remote software
- Automatic web casting code (HTML) generation
- Up to 10 simultaneous remote monitoring connections

- IP filtering, HTTPS, SSL, IEEE 802.1X, and configurable user authority levels for greater security
- Network bandwidth limitation and MAT features for more efficient use of network bandwidth
- Easy network access via UPnP (Universal Plug and Play) function and embedded mDNS (Multicast DNS) protocol
- Wide dynamic range compensation (Digital WDR) for improved video quality in high-contrast situations
- Slow shutter support for improved low-lighting video capture performance
- Day & Night feature (built-in IR cut filter changer)
- Quick and easy firmware upgrade over the network
- Redundant firmware and auto recovery features for improved system stability
- Network-based integrated management of multiple network cameras
- Multiple event detection modes: Alarm-in, motion detection, trip zone, audio detection, and tampering
- Backup storage on a SD card as a safeguard against data loss during network interruptions
- Supports 12 VDC, 24 VAC and PoE (Power over Ethernet)
- Supports zoom function using an optical zoom lens
- Supports auto focus function
- Supports pan/tilt driver control via RS485 interface
- Video out feature (selectable NTSC and PAL)
- Features a built-in microphone



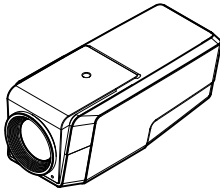
Remote monitoring and recording via multistreaming are available using the IDIS Solution Suite Compact programs. For more information on using IDIS Solution Suite Compact, refer to each **operation manual**.



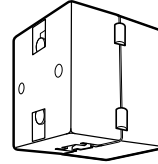
There is a limit to the number of users allowed to connect remotely via the Internet at the same time.

Accessories

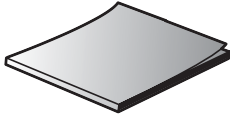
Upon purchasing the product, check inside the box to make sure all the following accessories are included. External appearances and colors of the accessories may vary depending on the model.



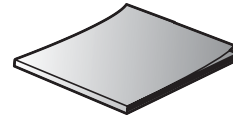
Network Camera



Ferrite Core




Open Source Guide

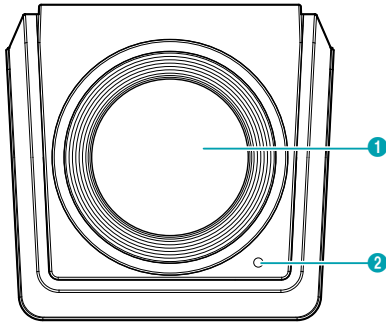


Quick Guide

Overview

 Product color and design may vary depending on the model.

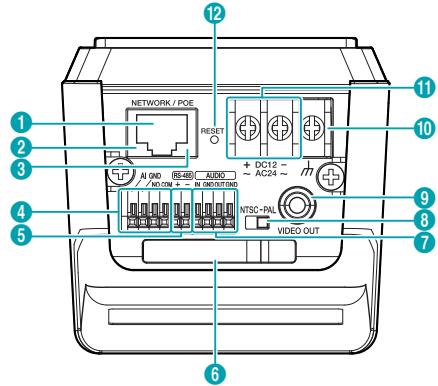
Front



1	Lens
2	Built-In Microphone

- **Lens**
Optical zoom lens is installed.
- **Built-In Microphone**
Receives audio.

Back



1	Network Port
2	Network LED
3	Power LED
4	Alarm Input /Alarm Output
5	RS485 Port
6	SD Memory Card Slot
7	Audio In / Audio Out
8	Video Signal Switch
9	Video Out
10	Frame GND
11	Power In
12	Factory Reset Switch

- **Network Port**
Connect a network cable with an RJ-45 connector to this port. If using a PoE switch, you can supply power to the camera using an ethernet cable. For more information on PoE switch use, refer to the switch manufacturer's operation manual. You can configure, manage, and upgrade this camera and monitor its images from a remote computer over the network. For more information on network connection setup, refer to the **IDIS Discovery operation manual**.

- **Network LED**

Indicates the network connection status. For more information, refer to the [LED Status Indications](#).

- **Power LED**

Indicates the system's operating status. For more information, refer to the [LED Status Indications](#).

- **Alarm Input /Alarm Output**

- **Alarm Input:** Connect an alarm-in device to this port. (Mechanism: Choose between an NC (Normally Closed) type or an NO (Normally Open) type) Connect a mechanical or electrical switch to the alarm in port and the GND (ground) connector. Alarm in range is 0V to 5V. In order to detect alarm input from an electrical switch, the signal must be higher than 4.3V from an NC switch or less than 0.3V from an NO switch and must last for longer than 0.5 seconds.

- **Alarm Output:** Connect an alarm out device's mechanical or electrical switch to the alarm out port and the COM (Common) connector. (Supported Types: NO (Normally Open), Electrical Specs: 0.3A sync current at 125 VAC, 1A sync current at 30 VDC)

- **RS485 Port**

Connect a pan/tilt driver to this port. Connect the driver's TX+/RX+, TX-/RX- to the network camera's +/—. For more information on RS485 connections, refer to the pan/tilt driver manufacturer's [operation manual](#).

- **SD Memory Card Slot**

Pull on the connection cover and then insert a SD card into the slot. (A product of SanDisk or Transcend is recommended)

- **Audio In / Audio Out**

- **Audio In:** Connect an audio source (line in). A built-in microphone is featured on the front.
- **Audio Out:** Connect an amplifier to this port (line out). This device does not feature a built-in audio amplifier unit and therefore requires the user to purchase a separate speaker system with a built-in amplifier.

- **Video Signal Switch**

Select the video signal between NTSC and PAL for video output.



- Do not remove the SD card while the system is in operation. Removing the card while the system is in operation can cause the system to malfunction and/or corrupt data stored on the SD card.
- An SD card is a consumable product with a finite service life. Prolonged use will damage the card's memory sectors and result in data loss or memory card failure. Test the SD card regularly and replace it whenever necessary.

- **Video Out**

Connect the monitor.



- Use these ports for previewing video and not monitoring video.

- **Frame GND**

Connect to the ground side of the power in by using the grounding wire.

- **Power In**

Loose the screws of power connector by turning the screw counter-clockwise and connect two wires from the power adapter (12 VDC or 24 VAC). You do not need to distinguish power polarity when connecting the wires. Booting will commence once connected to a power supply.

- **Factory Reset Switch**

Restores the camera's default factory settings. For more information, refer to the **Factory Reset**.

Factory Reset

Only use the factory reset switch to restore the camera to its factory default settings.



A factory reset will clear all camera settings configured by the user.

- 1 Shut off the power supply, insert a straight pin into the switch hole, and press down on the reset switch.
- 2 Hold the switch down and reconnect the power adapter.
- 3 Once the device turns back on and its LEDs start blinking, wait 5 seconds and then remove the pin.
- 4 The device will go through the resetting process and reboot. All camera settings will be restored to their factory defaults after the reboot.



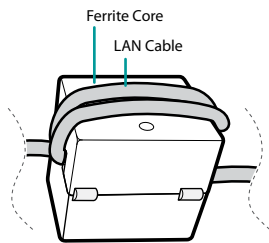
It's also possible to do a factory reset by pressing and releasing the reset switch while the camera is turned on or using the IDIS Discovery program from a remote location. A factory reset will reboot the system. For more information on factory reset, refer to the **IDIS Discovery operation manual**.



- Press down on the button and insert the video out/ power connector cable into the opening. Release the button and then pull on the cable slightly to ensure it is held securely in place. To disconnect, press down on the button again and pull the wire out.
- When inserting an, audio in/out, or RS485 connector, hold down the button and push the connector in through the exposed hole. Release the button and then gently pull on the wire to ensure a secure connection. To disconnect the cable, press down on the button again and pull the cable out.
- Check your local laws and regulations on making audio recordings. The user will be held liable for any violation of the law. (Article 25-5 of the Personal Information Protection Act: Operators of image data processing devices may not operate such devices for purposes other than as originally intended during device installation, place such devices at locations other than as originally intended, or use such devices to record audio.)



- When switching over from 12 VDC or 24 VAC to PoE as the power source, the system will be rebooted once the power adapter is disconnected.
- Ground the power port's frame ground terminal before use.
- Organize the power cable so that it will not cause people to trip over or become damaged from chairs, cabinets, desks, and other objects in the vicinity. Do not run the power cable underneath carpet or a rug or plug the cable into a power outlet shared by a number of other devices.
- Wrap the camera-end of the network cable twice around the provided ferrite core (28A2024-0A2, Laird Technologies) to subdue electromagnetic wave generation.

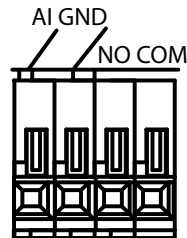


Appendix

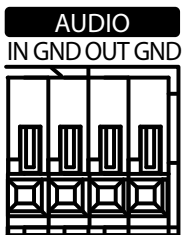
LED Status Indications

LED Status		Description
Power LED	Off	Power not connected
	Flashing	Booting
	On	Powered on
Network LED	On	Not connected to network
Power LED/ Network LED	Flashing (sequentially)	Software upgrade in progress

I/O Connector

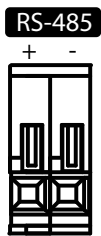


AI	Alarm In
GND	Grounding
NO	Alarm Out (Normally Open)
COM	Common



IN	Audio In
GND	Grounding
OUT	Audio Out
GND	Grounding


RS485 Connector



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

Installation

- 1 Connect external devices, network and power adapter.
- 2 Screw the camera to the wall or ceiling.
- 3 Supply the power.

 Check the wall or ceiling to see if it needs to be reinforced. The camera may fall off if the wall or ceiling is not strong enough to support its weight.

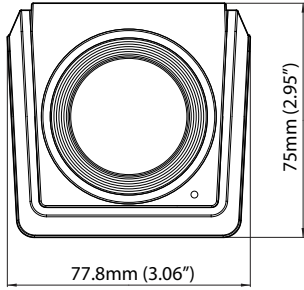
Bracket

This bracket(sold separately) can be installed on either top or bottom of the camera. Use 1/4–20 UNC (20-thread), 2.5mm +/- 0.2mm (ISO standard) or 0.197 (ASA standard) screws to attach the bracket.

Dimensions

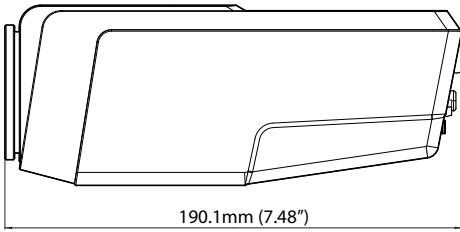
Front

DC-Z1163 / DC-Z1263



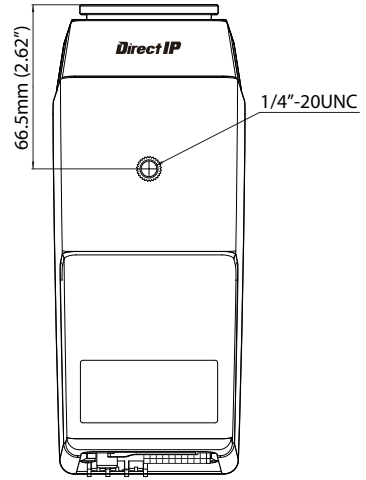
right

DC-Z1163 / DC-Z1263



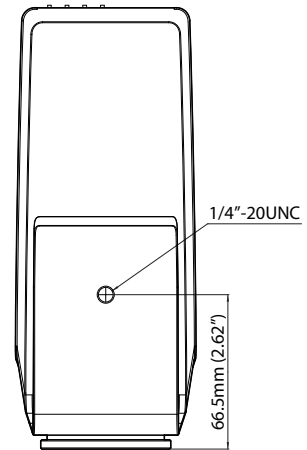
top

DC-Z1163 / DC-Z1263



bottom

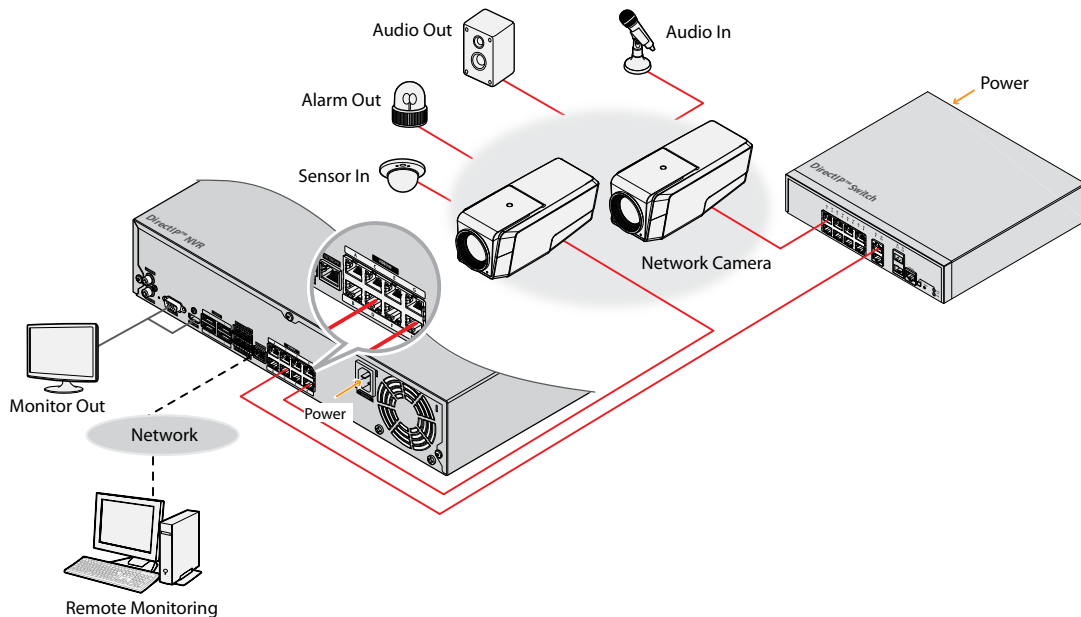
DC-Z1163 / DC-Z1263



Part 2 - Camera Connection

Use the camera by connecting to DirectIP™ NVR or non DirectIP™ NVR, VMS such as IDIS Solution Suite Compact.

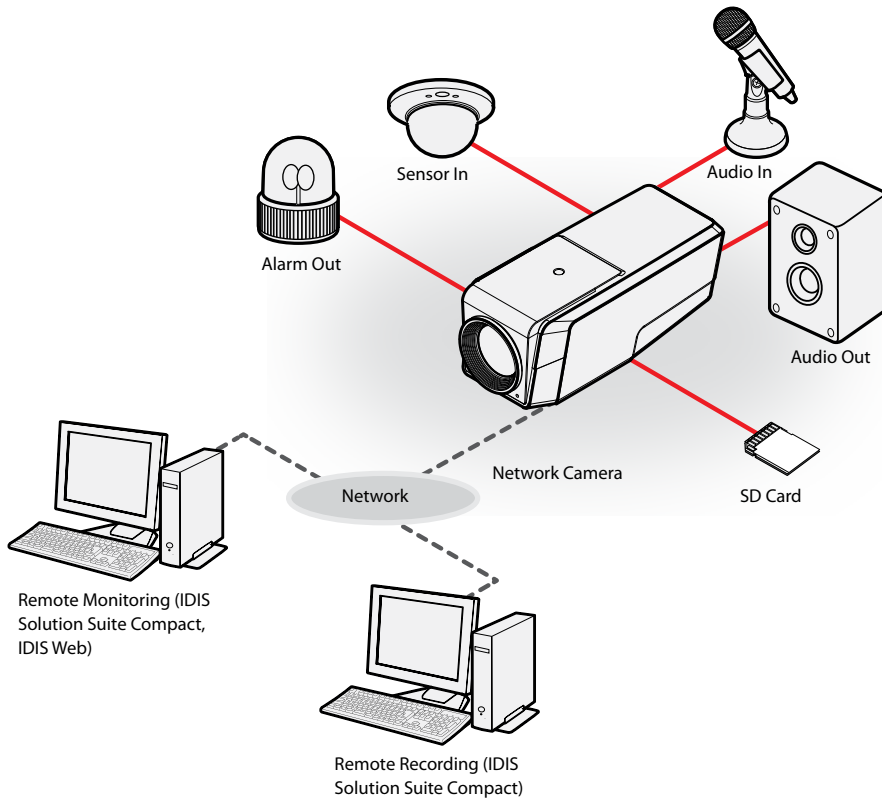
With DirectIP™ NVR-based Layout



DirectIP™ NVR makes it easy to use cameras without extra network configurations. Each camera can be controlled via the DirectIP™ NVR setup menu, without any PC. For detailed camera settings, please see the camera setting pages of DirectIP™ NVR manual.

For users using the camera with DirectIP™ NVR connection, do not need to consider contents in the camera operation manual.

With non DirectIP™ NVR-based Layout



Control the camera over the network from software installed on a computer.
Ideal for using the camera over the network from a remote location.

The contents in the camera operation manual are only for users using the camera with non DirectIP™ NVR connection or VMS connection such as IDIS Solution Suite Compact.

Part 3 - Appendix

Troubleshooting

Problem	Check
The main unit won't turn on.	<ul style="list-style-type: none">• Check the power cable connection.• Check the power outlet.
PoE switch isn't being recognized.	Check the grounding status of the I/O device connected to the camera and the PoE switch. If they are not grounded, ground them and try again.
I can't see Live videos.	<ul style="list-style-type: none">• Check the camera's power status.• Check the network connection status of the computer and the network camera.
Images are blurry.	<ul style="list-style-type: none">• Make sure the lens is clean. If not, clean it using a soft piece of cloth or a brush.• Make sure the lens is in focus. Adjust the focus during daytime.• If there is too much light coming into the camera or the camera is picking up an overly bright light source, adjust the camera's position/angle accordingly.
Video color appears incorrect.	Check the white balance settings. If using the Auto option, it may take some time for the white balance to be adjusted.
Images are blinking.	If the camera is pointed at the sun or a fluorescent lamp, adjust the camera's angle away.
Lost the admin ID and password and unable to connect to a network camera.	You must perform a factory reset. A factory reset will revert all settings, including network settings, to their factory defaults. After performing a factory reset, make a memo of the admin ID and password as a safety precaution.
Unable to launch IDIS Web.	If the IDIS Web login screen is not loading, check which version of Microsoft Internet Explorer you are using. IDIS Web may not launch properly on versions 8.0 or below.

Specifications



These product specifications may change without prior notice.

Lens

Lens Type	Varifocal optical (18x) zoom lens
Focal Length	F1.6 ~ F2.8, f=4.7 mm to 84.6 mm
Angle View	H: 61.2° (Wide) ~ 3.6°(Tele) V: 35.6° (Wide) ~ 2.1°(Tele) D: 68.9°(Wide) ~ 4.1°(Tele)
Lens Iris Control	DC auto iris
Day/Night Filter	Yes

Camera

Image Sensor	1/2.8" CMOS
Minimum Subject Lux	COLOR: 0.172 Lux F 1.6 BW: 0.0048 Lux F 1.6 BW: 0.0024 Lux F 1.6 (shutter 1/7.5s)
Scanning Method	Progressive scan
Signal-to-Noise Ratio	> 31.2 dB
Dynamic Range (Digital WDR)	> 74.7 dB
Electronic Shutter	Auto
External Storage* (Optional)	SD (SDHC) card (Class 6 or above, up to 32 GB)



- An SLC (Single Level Cell) or MLC (Multi Level Cell) card by SanDisk or Transcend is recommended to ensure stable recording performance.
- An SD card is a consumable product with a finite service life. Prolonged use will damage the card's memory sectors and result in data loss or memory card failure. Test the SD card regularly and replace it whenever necessary.

Video

	DC-Z1163	DC-Z1263
Signal Format	NTSC or PAL (selectable)	
Compression Algorithm	H.264, M-JPEG (supports 4-stage image compression rate)	
Compression Resolution	352x240, 704x480, 1280x720	352x240, 704x480, 1280x720, 1920x1080
Bitrate Control	H.264 – CBR / VBR (up to 8 Mbps) H.264 – CBR / VBR (up to 12 Mbps)	
Maximum Transmission Speed (frames per second)	30 ips @ 1280x720 + 15 ips @ 1280x720	15 ips @ 1920x1080 + 15 ips @ 1920x1080 + 30 ips @ 704x480 (Triple stream) 30 ips @ 1920x1080 + 30 ips @ 704x480 (Dual stream)
Multi-Stream	Primary, Secondary, Tertiary	

Audio

	DC-Z1163 / DC-Z1263
Compression Algorithm	G.726 (8KHz), G.711 μ – Law (8KHz), ADPCM (16KHz)

I/O

	DC-Z1163 / DC-Z1263
Video Out**	1 composite, 1 Vp-p
Audio In	1 line in or 1 built-in microphone
Audio Out	1 Line Out
Alarm In	1 TTL, NC/NO programmable, 4.3V (NC) or 0.3V (NO) threshold, 5 VDC
Alarm Out	1 relay out, NO only, 0.3A @ 125 VAC, 1A @ 30 VDC
Network Connection	10/100 Mbps Ethernet



Use these ports for previewing video and not monitoring video.

Connector

	DC-Z1163 / DC-Z1263
Video Out**	RCA
Audio I/O	Terminal Block
Alarm I/O	Terminal Block
Ethernet Port	RJ-45
RS485 Serial Port	Terminal Block



Use these ports for previewing video and not monitoring video.

General

	DC-Z1163 / DC-Z1263
Exterior Dimensions (W x H x D)	2.89" x 2.94" x 7.83" (73.5mm x 74.7mm x 199mm)
Packaging Dimensions (W x H x D)	9.76" x 4.33" x 5.71" (248mm x 110mm x 145mm)
Weight (Main Unit)	1.57 lbs. (710g)
Weight (Packaging)	2.4 lbs. (1.1kg)
Working Temperature	14°F to 122°F (-10°C to 50°C) [Boot up temperature: 32°F to 122°F (0°C to 50°C)]
Operating Humidity	0% ~ 90%
Power	12 VDC, 24 VAC, PoE (Power over Ethernet) (IEEE 802.3af, Class 0)
Power Consumption	Max. 6W
Certifications	FCC, CE



IDIS Co., Ltd.

For more information, please visit at
www.idisglobal.com