



DirectCX Camera

Installation Manual

TC-D5531RX

TC-D5531RXP

TC-D5531WRX

TC-D5531WRXP

TC-D5532RX

TC-D5532WRX

Before reading this manual

This is a basic installation manual for use of an IDIS 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 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	Publication	Description
	IEC60417, No.5031	Direct current

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. You may want to install a UPS (Uninterruptible Power Supply) system for safe operation in order to prevent damage caused by an unexpected power stoppage. Any questions concerning UPS, consult your UPS retailer.

This equipment should be remain readily operable.

8. Power Cord

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. 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:

- When the power-supply cord or the plug has been damaged.
- If liquid is spilled, or objects have hit the equipment.
- If the equipment has been exposed to rain or water.
- 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.
- If the equipment has been dropped, or the cabinet damaged.
- 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. Replace only with the same or equivalent type.

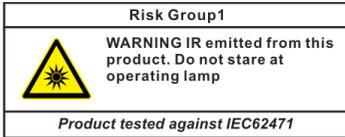
Dispose of used batteries according to the instructions.

The battery shall not be exposed to excessive heat such as sunshine, fire or the like.

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.

Before reading this manual



Warning: This product emits infrared light. Do not look into the IR LED.

FCC Compliance Statement

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

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

WEEE (Waste Electrical & Electronic Equipment)

Correct Disposal of This Product

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



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

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

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

Copyright

© 2020 IDIS Co., Ltd.

IDIS Co., Ltd. reserves all rights concerning this operation manual.

Use or duplication of this operation manual in part or whole without the prior consent of IDIS Co., Ltd. is strictly prohibited.

Contents of this operation manual are subject to change without prior notice for reasons such as functionality enhancements.

Registered Trademarks

IDIS is a registered trademark of IDIS Co., Ltd.

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

Table of Contents

1

Part 1 – Introduction.....	6
Product Features	6
Accessories.....	7
Overview	9
Dome Cover	9
Body.....	9
I/O Device Port.....	10
Lens	11
Installation	12
Removing the Dome Cover	12
Installation.....	13
Angle Adjustment.....	14
Closing the Dome Cover.....	15
Dimension	15

2

Part 2 - Camera Connection	17
With DirectCX DVR-based Layout	17
Troubleshooting	19
Specifications	20

Part 1 – Introduction

Product Features

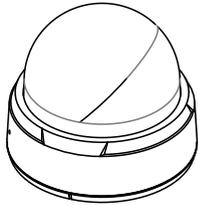
**TC-D5531RX/TC-D5531RXP/TC-D5531WRX/
TCD5531WRXP/TC-D5532RX/TC-D5532WRX** is an analog camera that transmits video over coaxial.

- Supports DC 12V, AC 24V and PoC (Power over Coaxial) *Power source for each model —see product specifications on the back page.*
- TVI/AHD/SD video output support
- Smart IR support
- Defog function support
- Wide dynamic range compensation (True WDR) for improved video quality in high-contrast situations
- Sense-Up support for improved low-lighting video capture performance
- Day & Night feature (built-in IR cut filter changer)
- Auto-focus control support
- Event detection mode
- Includes a motorized focus and zoom lens
- IK10 and IP67-level for water resistant protection and dust proof against rain and dust *TC-D5531WRX/
D5531WRXP/TC-D5532WRX only*

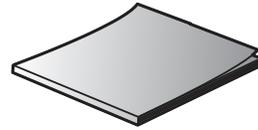
Accessories

Upon purchasing the product, check inside the box to make sure all the following accessories are included.

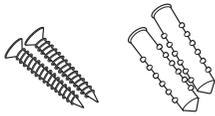
TC-D5531RX/TC-D5531RXP/TC-D5532RX



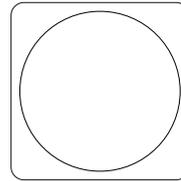
Camera



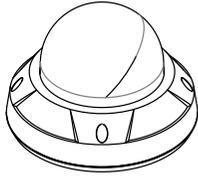
Quick Guide



Screws and Anchors (each 2 ea.)



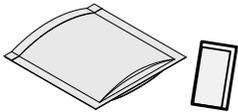
Guide Pattern



Camera



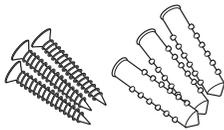
Quick Guide



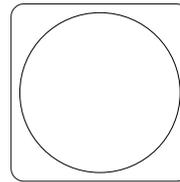
Desiccant, Double-sided Tape



Allen Wrench



Screws and Anchors (each 3 ea.)

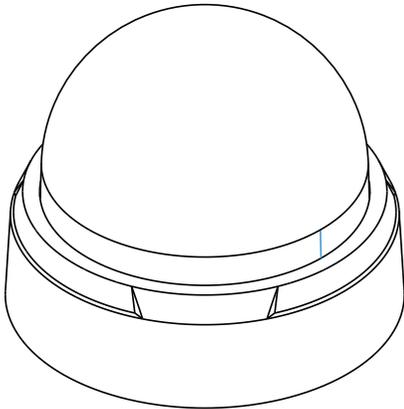


Guide Pattern

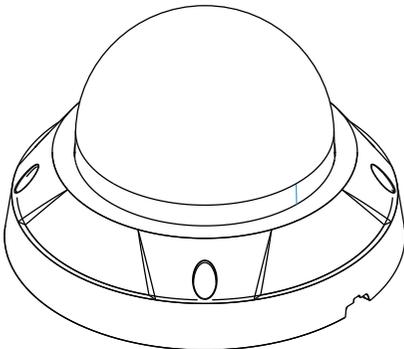
Overview

Dome Cover

TC-D5531RX/RXP, TC-D5532RX

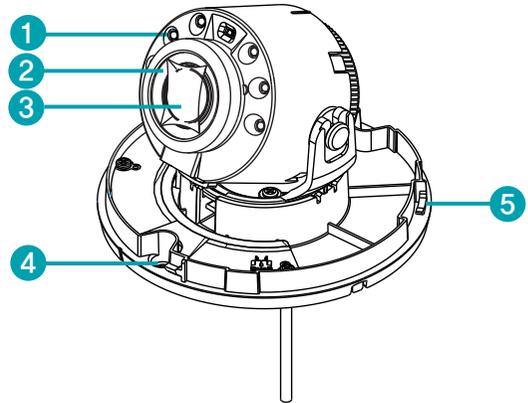


TC-D5531WRX/WRXP, TC-D5532WRX



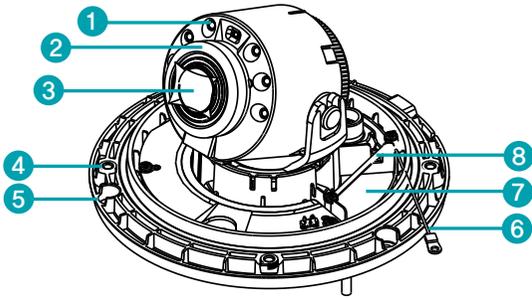
Body

TC-D5531RX/RXP, TC-D5532RX



①	IR LED
②	Rubber Bushing
③	Lens
④	Wall/Ceiling Installation Hole
⑤	Bottom Cover

TC-D5531WRX/WRXP, TC-D5532WRX

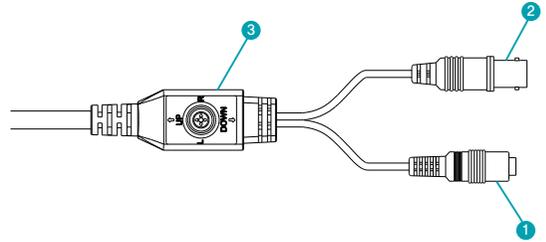


1	IR LED
2	Rubber Bushing
3	Lens
4	Dome Cover Assembly Part
5	Wall/Ceiling Installation Hole
6	Safety Hook
7	Desiccant Insertion Location
8	Clamp

- **IR LED**
A sensor inside the camera detects the level of illumination and activates the IR LED in low-lighting conditions.
- **Rubber Bushing**
Blocks LED infrared rays.
- **Lens**
A motorized focus and zoom lens is installed.
- **Dome Cover Assembly Part**
The dome cover rotates on the bottom cover and is tightened.
- **Wall/Ceiling Installation Hole**
Used to screw the camera on a wall or a ceiling.
- **Safety Hook**
Prevents the dome cover from falling off.
- **Desiccant Insertion Location**
Insert the desiccant.
- **Clamp**
Fixes the desiccant in place so as for the desiccant not to fall off.

I/O Device Port

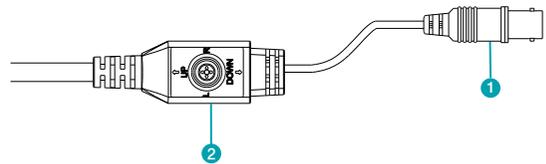
TC-D5531RX/ WRX, TC-D5532RX/ WRX



1	Power In (DC 12V/ AC 24V)
2	BNC Video Out (Yellow Cable)
3	OSD Button

- **Power In**
Connect it to the power adapter (DC 12V/ AC 24V).
AC 24V —TC-D5532RX/WRX only
- **BNC Video Out**
Connect it to the DVR.
- **OSD Button**
Use the button to set the OSD menu.

TC-D5531RXP/D5531WRXP



1	BNC Video Out (Black Cable)
2	OSD Button

- **BNC Video Out**
Connect it to the PoC power unit.

For D5531RXP/D5531WRXP products, CVBS is available as a preview only when the camera is being installed.

- **OSD Button**
Use the button to set the OSD menu.

✓ The following table describes the AC 24V and coaxial cable specifications.

<AC 24V cable specifications>

Cable Type (AWG)		#22	#20	#18
Maximum length	TC-D5532 RX/WRX	60m	80m	100m

✓ The following table describes the coaxial cable specifications.

<The coaxial cable specifications>

Item	Content		Note
Connector	BNC		
Cable	3C-2V	5C-2V	
Maximum length	300m	500m	

✓ You can change the video output format by using the OSD button.

- **CVBS:** Press the **UP** button three times, and then press the center of the OSD button.
- **TVI:** Press the **LEFT** button three times, and then press the center of the OSD button.
- **AHD:** Press the **RIGHT** button three times, and then press the center of the OSD button.

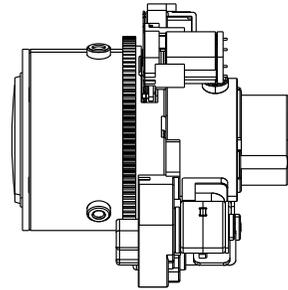
✓ You can change operate MFZ lens by using the OSD button.

- **Zoom In:** Press the **UP** button
- **Zoom Out:** Press the **DOWN** button
- **Focus NEAR:** Press the **LEFT** button.
- **Focus FAR :** Press the **RIGHT** button.

- ⚠
- Check your local laws and regulations on making video or audio recordings. The user will be held liable for any violation of the law.
 - 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.

Lens

Motorized focus and zoom lens



✓ When installing or handling the camera, be careful not to give an impact on the lens to prevent a malfunction from occurring.

Installation

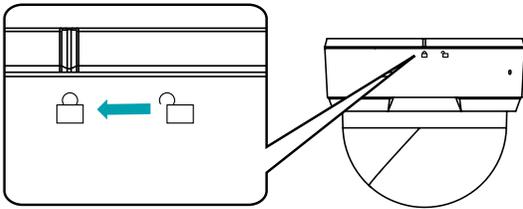
Installation of this product does not require the use of special tools. For more information on other devices comprising the overall system, refer to their respective installation manuals.

Product color and design may vary depending on the model.

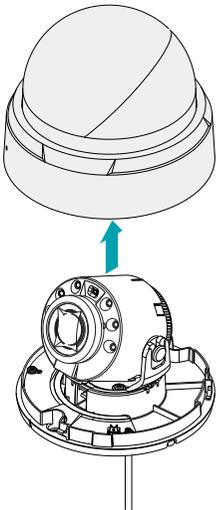
Removing the Dome Cover

TC-D5531RX/ RXP, TC-D5532RX

1 Turn the dome cover counterclockwise.

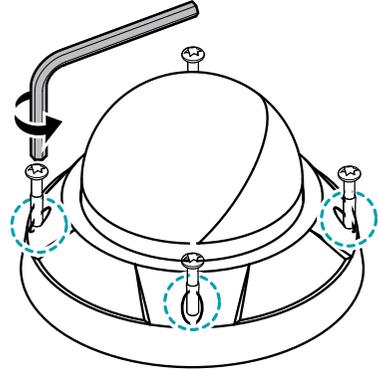


2 Remove the dome cover.

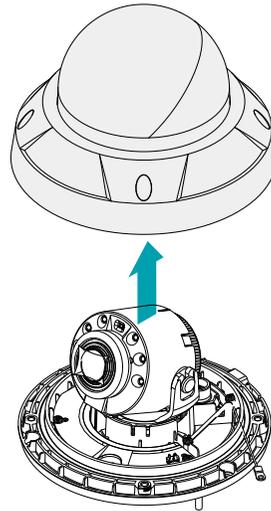


TC-D5531WRX/ WRXP, TC-D5532WRX

1 Loosen the screws counterclockwise using the allen wrench provided with the product.



2 Remove the dome cover.



Installation



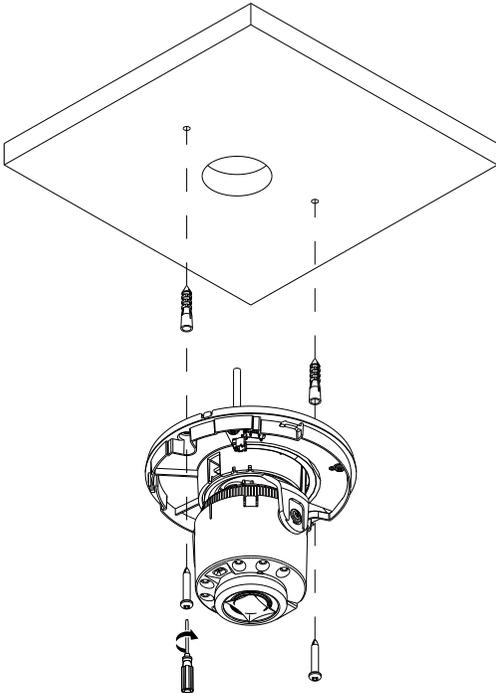
- Check the wall or ceiling to see if it needs to be reinforced. The camera may fall off if the wall or ceiling is not strong enough to support its weight.
- Install the camera in a shaded area. If the camera is installed in direct sunlight, it may be affected adversely.

TC-D5531RX/ RXP, TC-D5532RX

- 1 Use the screws, anchor provided with the camera to secure the install bracket on a wall or a ceiling.



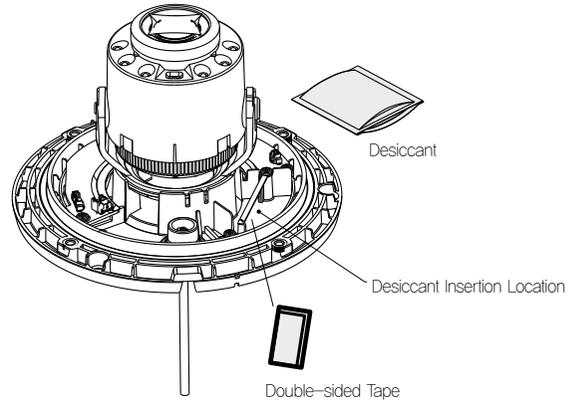
- Use the provided guide pattern to check the distance between the screws.



- 2 Connect external devices and the power adapter.
- 3 Adjust the angle. For more information, refer to the **Angle Adjustment**.

TC-D5531WRX/ WRXP, TC-D5532WRX

- 1 Desiccant is presented for preventing moisture. Attach the the desiccant to the designated area by using the enclosed double-sided tape.

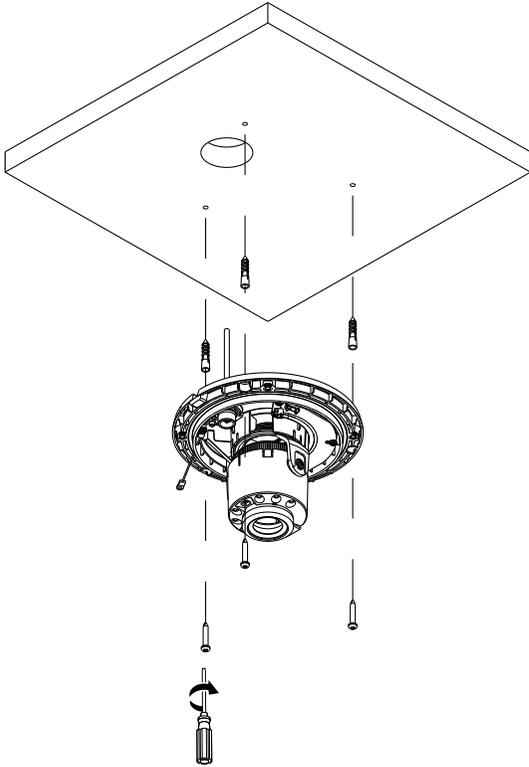


- Secure the desiccant with the clamp to prevent it from falling off.

Part 1 – Introduction

2 Use the screws, anchor provided with the camera to secure the install body on a wall or a ceiling.

Use the provided guide pattern to check the distance between the screws.



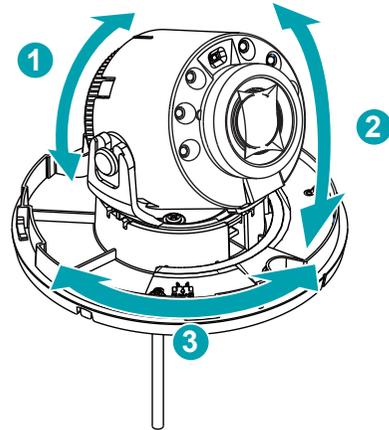
3 Connect external devices and the power adapter.

4 Adjust the angle. For more information, refer to the **Angle Adjustment**.

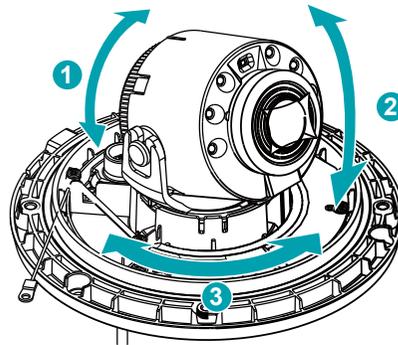
Angle Adjustment

The lens can be rotated along three axes.

TC-D5531RX/RXP, TC-D5532RX



TC-D5531WRX/WRX, TC-D5532WRX



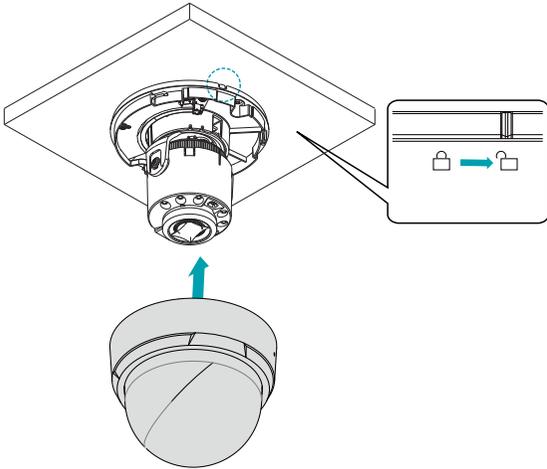
1	Lens Rotation
2	Vertical Rotation
3	Horizontal Rotation

- **Lens Rotation**
Used to adjust the lens' rotation angle. Turn the lens rotator clockwise or counterclockwise direction.
- **Vertical Rotation**
Used to adjust the lens' vertical angle.
- **Horizontal Rotation**
Used to adjust the lens' horizontal angle. Turn the horizontal rotator in the clockwise or counterclockwise direction.

Closing the Dome Cover

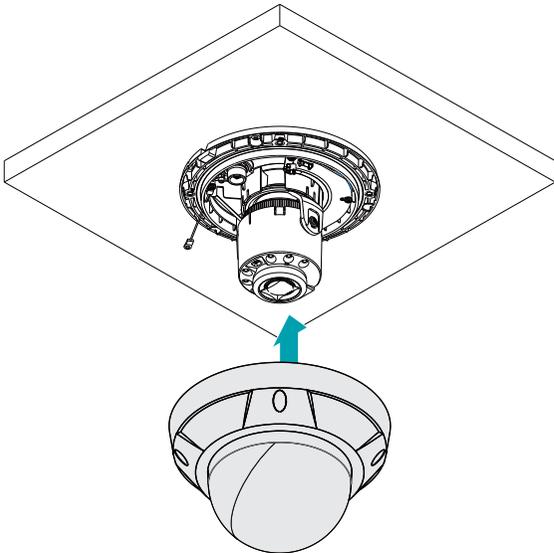
TC-D5531RX/RXP, TC-D5532RX

Attach the dome cover to the bottom cover. Turn the dome cover clockwise to fasten the dome cover.



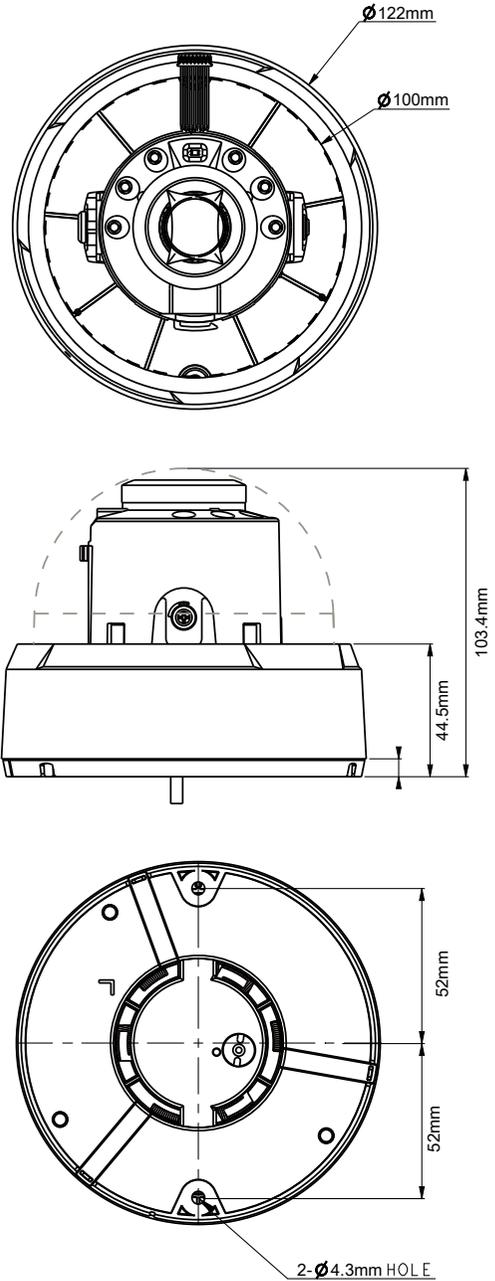
TC-D5531WRX/WRXP, TC-D5532WRX

Fasten the screws for the dome cover clockwise using the Allen wrench provided with the camera.



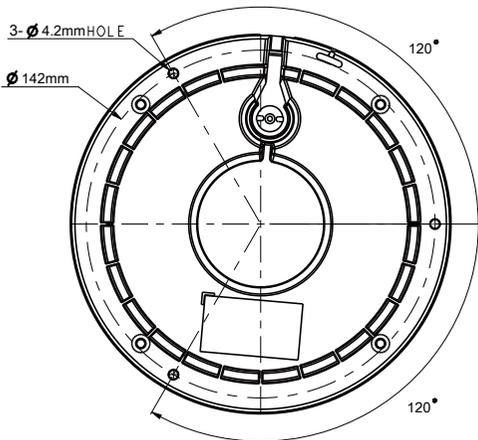
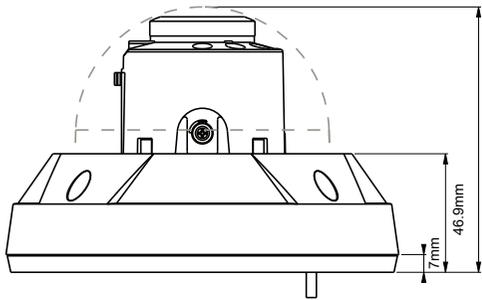
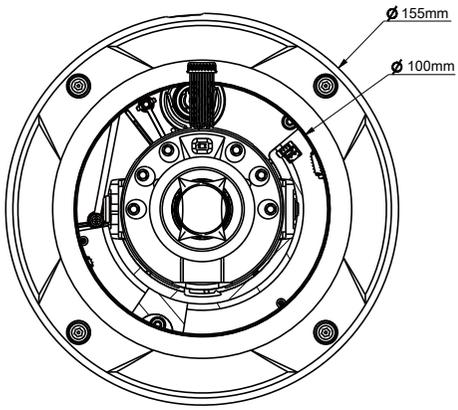
Dimension

TC-D5531RX/RXP, TC-D5532RX



Remove the protective film inside and outside.

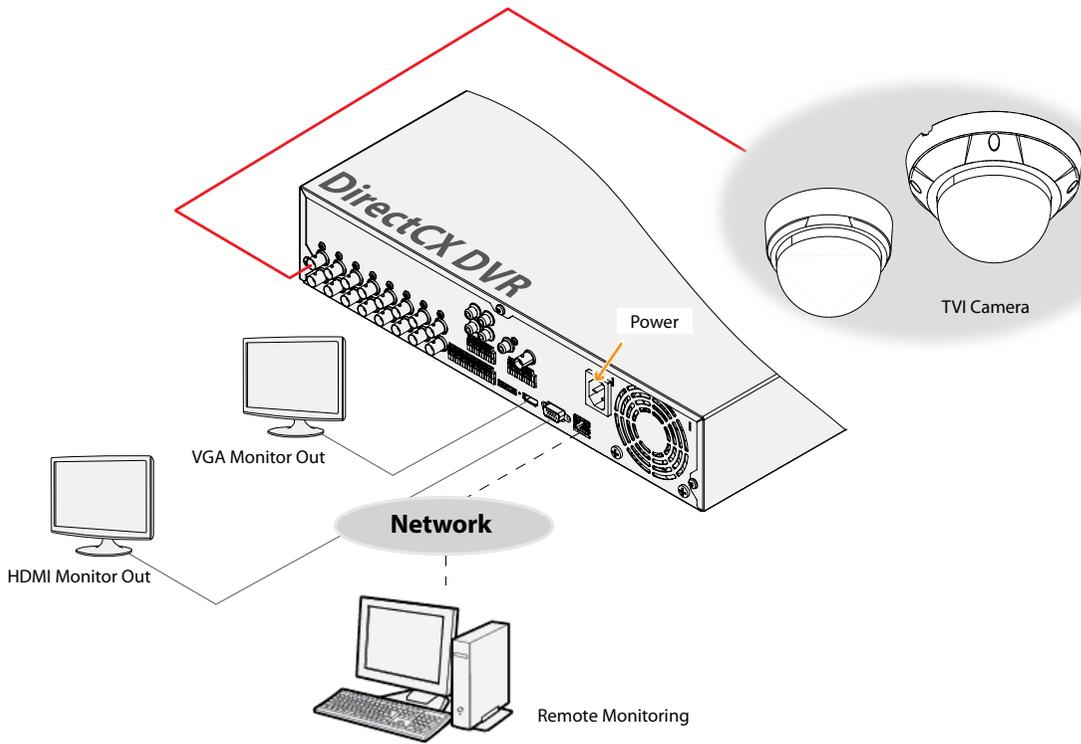
TC-D5531WRX/D5531WRXP



Part 2 - Camera Connection

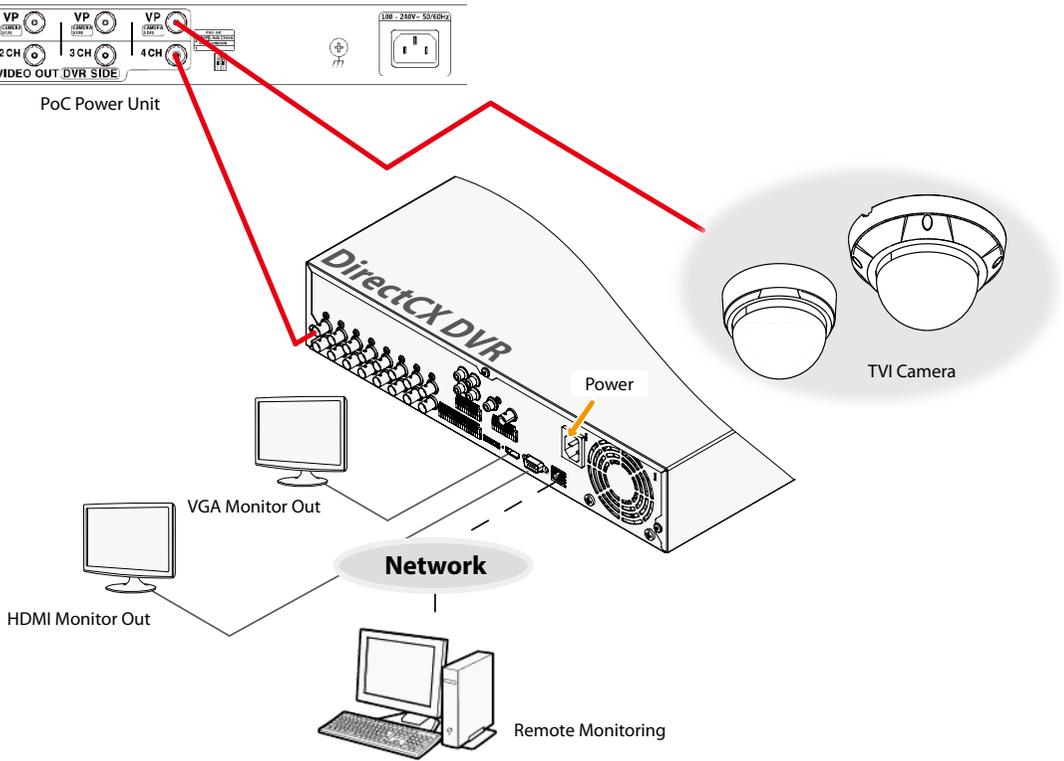
With DirectCX DVR-based Layout

TC-D5531RX/D5531RXP



Part 2 - Camera Connection

TC-D5531WRX/D5531WRXP



Troubleshooting

Problem	Check
The main unit won't turn on.	<ul style="list-style-type: none"> • Check the power cable connection. If using a PoC switch to supply power to the camera, check the coaxial cable connection. • Check the power outlet. If using a PoC switch to supply power to the camera, check the PoC device's power supply.
I can't see Live videos.	<ul style="list-style-type: none"> • Check the camera's power status. • Check the connection status of the camera with DVR. • If using a PoC switch to supply power to the camera, check the connection status of the camera with PoC device.
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.

Specifications



These product specifications may change without prior notice.

Camera

Image Sensor	1/2.8" CMOS	
Max. Resolution	2592 x 1944	
Scanning Mode	Progressive Scan	
Lens type	Motorized Vari-focal	
Focal Length	f=3.0 ~ 13.5mm	
Aperture	F=1.4 ~ 3.2	
Iris Control	DC Iris	
Angular Field of View	5M (2592 x 1944)	H: 91° (Wide) ~ 31° (Tele) V: 66° (Wide) ~ 23° (Tele) D: 120° (Wide) ~ 38° (Tele)
	4M (2560 x 1440)	H: 91° (Wide) ~ 31° (Tele) V: 49° (Wide) ~ 17° (Tele) D: 107° (Wide) ~ 35° (Tele)
Min. Illumination	COLOR : 0.13 lux @ F1.4 B/W : 0 lux (IR LED ON)	
Dynamic Range	True WDR	
Electronic Shutter Speed	Auto, Manual (1/30 ~ 1/30,000), Anti-Flicker , Sense-Up (OFF, X2, X4, X8, X16, X32)	
Day & Night	IR cut filter with auto switch	
IR Distance (LEDs)	30m (4ea)	
Pan/Tilt/Rotate Range	Pan: -175° ~ 175°, Tilt: 0° ~ 67°, Rotate: -177° ~ 177°	

Video

Video Output	TVI / AHD / SD
Max. Frame Rate	20fps : 2592 x 1944 12.5fps : 2592 x 1944 30fps : 2560 x 1440 30fps : 1920 x 1080 30fps : 720 X 480
Supported Resolution	2592 x 1944, 2560x1440, 1920x1080, 720 X 480

General

Operating Temperature	TC-D5531RX/RXP	-10°C ~ +50°C (-50°F ~ +122°F)
	TC-D5531WRX/WRXP	-10°C ~ +55°C (-50°F ~ +131°F)
	TC-D5532RX	-10°C ~ +50°C (-50°F ~ +122°F)
	TC-D5532WRX	-10°C ~ +55°C (-50°F ~ +131°F)
Operating Humidity		0% ~ 90%
Power Source	TC-D5531RX/WRX	DC 12V
	TC-D5531RXP/WRXP	PoC
	TC-D5532RX/WRX	DC 12V, AC 24V
Power Consumption	TC-D5531RX/WRX	Max. 6.6W
	TC-D5531RXP/WRXP	Max. 7.4W
	TC-D5532RX/WRX	DC 12V Max. 8W AC 24V Max. 8.3W
Approval		FCC, CE, IP67, IK10 <i>P67, IK10 —TC-D5531WRX/TC-D5531WRXP, TC-D5532WRX only.</i> <i>No FCC CE certification for TC-D5531RXP/TC-D5531WRXP</i>
External Dimensions (∅ x H)	TC-D5531RX/RXP, TC-D5532RX	122mm x 103.4mm (4.8" x 4.07")
	TC-D5531WRX/WRXP, TC-D5532WRX	155mm x 105mm (6.10" x 4.13")
Weight (Main Unit)	TC-D5531RX	0.285kg (0.62lb)
	TC-D5531RXP	0.315kg (0.69lb)
	TC-D5531WRX	0.81kg (1.78lb)
	TC-D5531WRXP	0.84kg (1.85lb)
	TC-D5532RX	0.3kg (0.66lb)
	TC-D5532WRX	0.815kg (1.79lb)



IDIS Co., Ltd.

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