



FortiCam FD51

QuickStart Guide



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3rd Edition

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Package Contents

- FortiCam camera
- 4 Mounting screws (M4 × 25 mm)
- 4 Wall anchors (7 × 26 mm)
- 2 2-pin terminal blocks
- Star (T10 Torx) key wrench
- Waterproof connection kit
- Side lid
- Screw (M4 × 6 mm) for the ground wire
- Replacement dry pack (silica gel desiccant) with tape
- Drill template (alignment) sticker



Hardware Installation

Caution: Only remove the protective wrap from the lens once installation is complete to avoid damage and scratches.

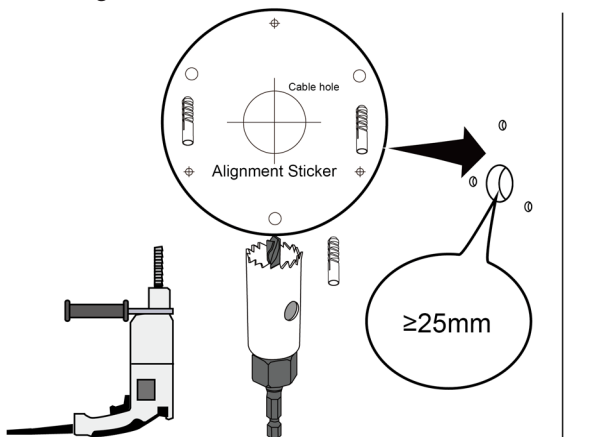
Before installation, store the camera in a dry, well ventilated place.

Hire qualified technicians to carry out maintenance and repairs. Disconnect power from the unit when performing maintenance.

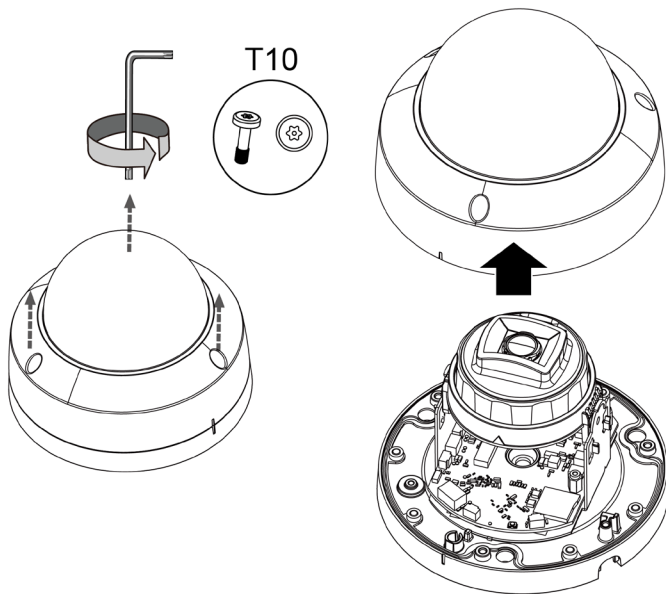
Provide adequate grounding to the camera and the PoE injector, in compliance with your local electrical code or regulations. The grounding wire color must be a green-and-yellow combination and the conductor size must be a minimum of 18 AWG. Use a knurled washer to secure the grounding screw. If the camera is powered by a power adapter, the power adapter should be properly grounded.

To install the camera

1. Before installing cameras, carefully design your system. Verify coverage of each camera. Decide whether to run cables **through** the wall/ceiling (drilling required) or **along** it, through the notch on the base. Choose a location that is not easily accessible, away from impacts and heavy vibrations. Avoid exposure to direct sunlight in outdoor locations for better image quality and longer service life.
2. Put the drill template sticker on the wall/ceiling. Drill the mounting holes.



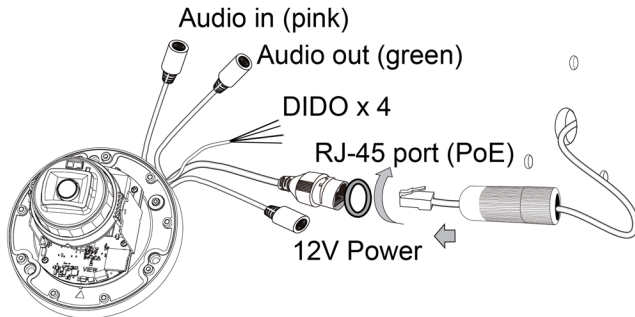
- 3.** Loosen the T10 anti-tamper screws and dome cover.
Do not touch the electronics.

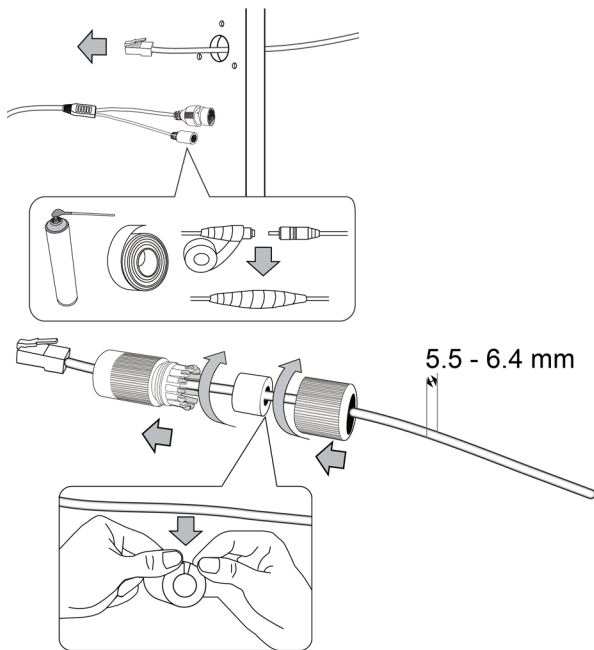


4. Pull the cables through the mounting hole.

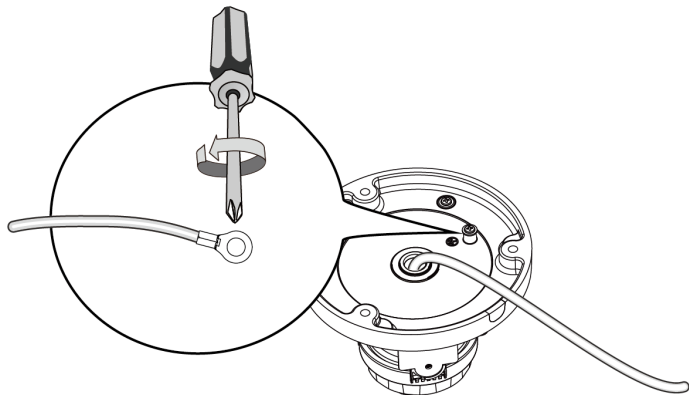
Assemble the waterproof connection kit around the Ethernet cable. Connect the Ethernet cable to the camera's RJ-45 connector.

If you use 12 V DC power, wrap the cable connections with electrical tape to make a waterproof seal.



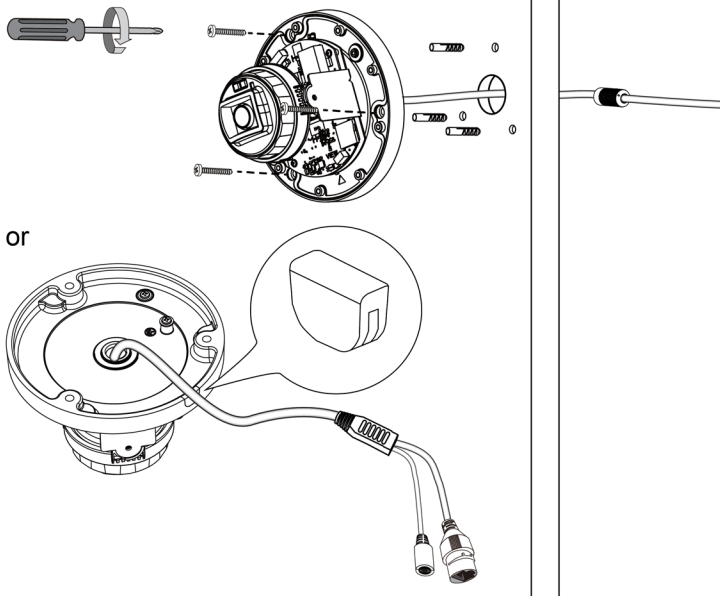


5. Attach the ground wire to the included screw.

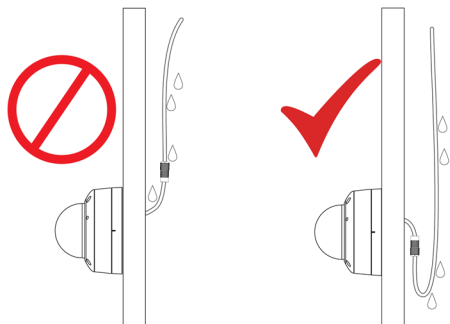


6. Mount the camera to the wall or ceiling. Either run the cables directly into the mounting hole, or through an opening at the side of the camera base by removing the side lid.

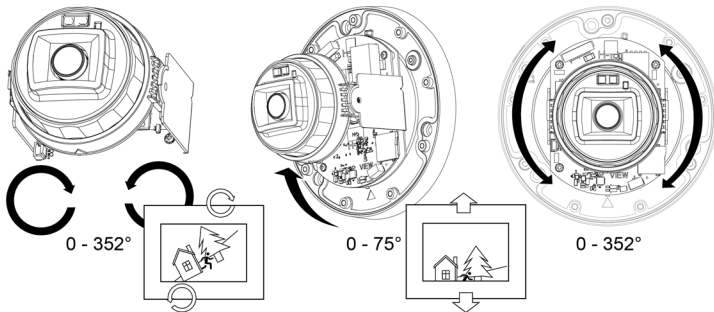
<10 kgf-cm



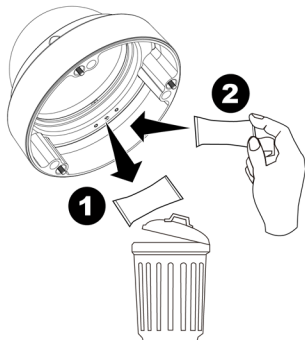
Allow slack in the cable so that any condensation drips away from the waterproof seal, not towards it.



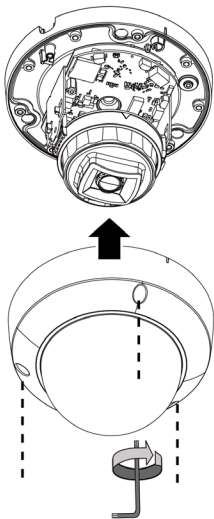
7. Adjust pan, tilt, and lens rotation to get the best field of view.



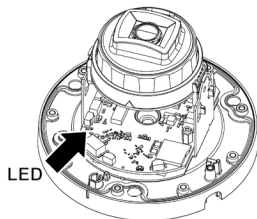
- 8.** Replace the desiccant inside of the dome cover. Verify that there is no moisture trapped inside of the dome cover.



9. Gently wipe the inside of the dome cover with a clean, lint-free cloth to remove all dust and particles. Install the dome cover. Remove protective wrap from the dome cover.



Status LEDs

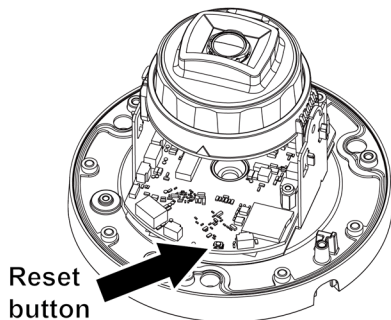


Note: Status LEDs can be disabled through software.

Operation	
Red solid/green flashing	Power on/Network OK
Red only	Power on/Network failure
Red fast flashing/green slow flashing	Firmware updating
Red fast flashing/green fast flashing	Factory reset

Bootup Sequence	
Red/green flashing once	Bootup beginning
Red solid	System booting
Red solid/green flashing	Bootup OK

Buttons



Reset Button Operation		
Press Time	LED	Action
< 5 seconds	No change in color	Reboot
> 10 seconds	Red/green flashing	Factory reset Note: The default IP address of the camera is 192.168.1.245.

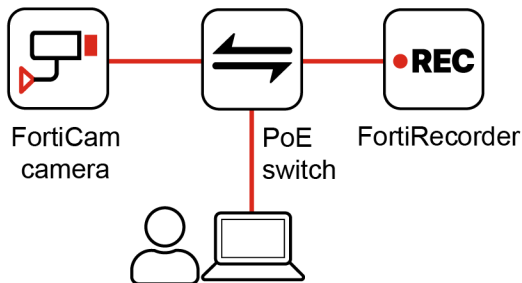
Camera Connection

Caution: This device complies with IEEE 802.3af PoE specification. Do not use any PoE injectors that are not IEEE 802.3af compliant as they may damage your device.

Attention: Cet appareil est conforme à la spécification PoE IEEE 802.3af. N'utilisez pas d'injecteurs PoE non conformes à la norme IEEE 802.3af car ils pourraient endommager votre appareil.

Caution: The power cord of the PoE adapter or PoE switch should be connected to a socket outlet with a grounded connection.

Attention: Le cordon d'alimentation de l'adaptateur PoE ou du commutateur PoE doit être connecté à une prise de courant avec une connexion à la terre.



To use FortiRecorder to connect the camera

1. Connect the Ethernet port of the camera to the FortiRecorder NVR via a PoE switch.
The camera automatically gets its IP address from the DHCP server on FortiRecorder. Else the default IP address of the camera is 192.168.1.245.
2. Use the FortiRecorder GUI to configure the discovered camera.
For details or connection troubleshooting, see the [FortiRecorder Administration Guide](#).

Technical Specifications

Camera	
Format	Fixed dome, day/night, in/outdoor, vandal
Sensor Type	5 Mp, 1/2.7" progressive CMOS
Iris	F1.6, fixed
Focal Length	f=2.8mm, fixed
Rotation	Pan = 350°, Tilt = 80°, Rotation = 350°
View Angle	H:111°/V:59°/D:133°
Minimum Illumination	0.055 Lux (color 30 IRE) @ F1.6 <0.005 Lux (B/W 30 IRE) @ F1.6 0 Lux (BW 30 IRE) @ F1.6
WDR	DOL WDR (>120 dB)
Network Interface	RJ-45 Ethernet 10/100 Mbps
IRLED/IRC	30 m/yes
3DNR	Yes
Streaming Protocol	RTSP
SD Card	Micro SD/SDHC/SDXC, up to 1 TB

Camera	
Video Compression	MJPEG/H.264/H.265(HEVC)
Audio	G.711, line in, line out, 3.5 mm stereo jack x 2
Alarm	DI x 1, DO x 1
Image Resolution	WDR off: 5 Mp at 30 fps/2 Mp at 20 fps/720p at 20 fps WDR on: 5 Mp at 20 fps/2 Mp at 20 fps/720p at 20 fps
Mounting	Wall, ceiling, 3-axis, accessories

Dimensions	
Height x Width x Length	3.62 × 4.61 × 4.61"(89.51 × 117.11 × 117.11 mm)
Weight	1.24 lb. (562 g)

Environment	
Power Required	PoE (802.3af)
Power Consumption	DC 12 V Max. 6.24 W (IR on) PoE Max. 6.38 W (IR on)
Operating Temperature	-22~144°F (-30~60°C) starting/working
Humidity	<90% non-condensing

Compliance
FCC Class A, ICES, CE, IP66, IK10, ONVIF Profile S, G, T

Register for Support and Cloud Access

Register your Fortinet product to receive:

- Technical support
- New product features
- Protection from new threats

Vous devez enregistrer le produit pour recevoir:

- Support technique
- Nouvelles fonctionnalités du produit
- Protection contre de nouvelles menaces

La reistrazione ti permette di usufruire di:

- Supporto tecnico
- Nuove funzionalità
- Protezione dalle ultime minacce

Debe registrar el producto para recibir:

- Apoyo técnico
- Nuevas funcionalidades del producto
- Protección contra ataques

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Cloud: <https://forticameracloud.com/>

Toll free: 1 866 648 4638

Phone: 1 408 486 7899

Fax: 1 408 235 7737

Email: register@fortinet.com

Cautions and Warnings

Environmental Specifications

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude).

Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

Safety

Caution: This equipment is to be used in a Network Environment 0 per IECTR 62101. This product is connected only to PoE networks without routing to the outside plant.

Attention: Ce matériel doit être utilisé dans un Environnement Réseau 0 par IECTR 62101. Ce produit est uniquement connecté aux réseaux PoE sans installation externe de routage.

This product is intended to be supplied by a Listed Direct Plug-In Power Unit marked LPS or Class 2 and rated 12 Vdc, 0.52 A, or by 37-57 Vdc from PoE source.

Le produit doit être alimenté par un bloc d'alimentation à courant continu homologué UL marqué LPS ou Classe 2 de 12 Vdc, 0,52 A, nominal marqué LPS ou Class 2 ou par une source d'alimentation par Ethernet de 37-57 Vdc (PoE).

The connecting cable between the outdoor equipment and the indoor ITE devices should comply with Class 3 wiring methods as listed in NEC, Table 725.154(G) for Class 3 Cable Substitutions.

Le câble connectant l'équipement extérieur et ceux d'intérieur de type ITE doit être conforme avec les méthodes de câblage de classe 3 tel que listé dans le standard NEC, Table 725.154(G) pour les câbles de substitutions de classe 3.

PoE input cable type should be CL3, CL3P, CL3R, CL3X, marked "SUNLIGHT RESISTANT", "SUN. RES.", or "SR." and "water resistant" or "W".

Le type de câble PoE d'entrée doit être CL3, CL3P, CL3R, CL3X marqué "SUNLIGHT RESISTANT". "SUN RES." Ou «SR». et "waterproof" ou "W".

Battery – Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie – Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告

本電池如果更換不正確會有爆炸的危險

請依製造商說明書處理用過之電池

CAUTION:

There is a danger of explosion if a battery is incorrect replaced. Replace only with the same or equivalent type.

Dispose batteries of according to the manufacturer's instructions.

Disposing a battery into fire, a hot oven, mechanically crushing, or cutting it can result in an explosion.

Leaving a battery in an extremely hot environment can result in leakage of flammable liquid, gas, or an explosion.

If a battery is subjected to extremely low air pressure, it may result in leakage of flammable liquid, gas, or an explosion.

WARNUNG:

Lithium-Batterie Achtung: Explosionsgefahr bei fehlerhafter Batteriewechsel. Ersetzen Sie nur den gleichen oder gleichwertigen Typ. Batterien gemäß den Anweisungen des Herstellers entsorgen.

Beseitigung einer Batterie in Feuer oder in einen heißen Ofen, und mechanisches Zerkleinern oder Scheiden, kann zu einer Explosion führen.

Verlassen einer Batterie in einer extrem hohen Umgebungstemperatur kann zu einer Explosion oder zum Austreten von brennbarer Flüssigkeit oder Gas führen.

Extrem niedriger Luftdruck kann auch zu einer Explosion der Batterie führen beziehungsweise zum Austreten von brennbarer Flüssigkeit oder Gas führen.

Regulatory Notices

Federal Communication Commission (FCC) – USA

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received; including interference that may cause undesired operation.

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 it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Innovation, Science and Economic Development (ISED) – Canada

CAN ICES-003 (A) / NMB-003 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Conformity (CE) - EU

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



