AT-CAB
AT-CAS
Surveillance Cabinet

Installation Guide



Rev.: 1.2

Document part no.: 625034802G

CAUTION:
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

UNPACKING:
Unpack carefully. Electronic components can be damaged if improperly handled or dropped. If an item appears damaged in shipment, place it properly in its carton and notify the shipper.

⚠ IMPORTANT!:

1. The electrical connections and conduit installations shall be made by a certified electrician following local regulations.
2. Risks of electric shock exist. The mains supply shall be disconnected before installation.
3. Read and follow Instructions: All operating and user instructions should be read and followed before the unit is to be operated.
4. This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is listed rated not greater than 20A.
5. Attach the ground wire (to external ground) to a suitable grounding point, e.g., an earth stake.
6. Observe national and local regulations for the installation.
7. To avoid additional accummulation of moisture, please avoid installing the components in cabinet during a raining weather.
8. Only use applicable tools when installing this product; excessive force can damage the product.
9. Use only accessories compliant with the technical specifications of the product.
10. When the need arises for transportting this product, it is recommended to use the original shipping package.

Revision History:

Rev. 1.0: Initial release.
Rev. 1.1: Added screw type description, applicable accessories, and cable gauge information.
Rev. 1.2: Added a table for the included parts/accessories.

I Applicable Modules & Components

Item	Models
AT-CAB-001	Cabinet
AT-CAS-001	Cabinet for speed dome
Optional accessories	**Models**
AW-IHS-0200	Industrial Fiber-Ethernet converter, SC type, multi-mode, 2km.
AW-IHS-0201	Industrial Fiber-Ethernet converter, SC type, single mode, 30km
AW-IHS-0203	Industrial Fiber-Gb Ethernet converter, LC type.
AW-IHT-0100	Industrial GbE PoE injector, 30W output.
AW-IHU-0100	Industrial GbE UPoE injector, 60W output.
AW-IHH-0100	Industrial GbE PoH/PoE injector, 95W output.
AW-IHT-0200	Industrial 1xGb PoE, 1xGb fiber SFP switch, 30W output.
AW-IHU-0200	Industrial 1xGb UPoE, 1xGb fiber SFP switch, 60W output.
AW-IHH-0200	Industrial 1xGb PoH/PoE, 1xGb fiber SFP switch, 95W output.
AW-IHT-0500	Industrial 4x 10/100BaseT, 1x SFP, PoE switch, 30W output, 120W budget.
AW-IHT-0501	Industrial 4x 10/100BaseT, 1x SC 2km, PoE switch, 30W output, 120W budget.
AW-IHT-0502	Industrial 4x 10/100BaseT, 1x SC 30km, PoE switch, 30W output, 120W budget.
AW-IHT-0600	Industrial 4x GbE, 1x Combo GE + 1x GE SFP, PoE switch, 30W output, 120W budget.
AW-IHT-0601	Industrial 4x GbE, 1x Combo GE + 1x GE SFP, PoE switch, 30W output, 120W budget.
AW-IHU-0600	Industrial 4x GbE, UPoE, 2x GbE SFP, PoE switch, 60W output, 240W budget.

Optional accessories	Models
IRM-60-12ST	85~264VAC input, 12VDC/60W output power supply, -30**ºC** ~ 70ºC
IRM-60-48ST	85~264VAC input, 48VDC/60W output power supply, -30**ºC** ~ 70ºC
NDR-75-48	90~264VAC input, 48VDC/75W output power supply, -20**ºC** ~ 70ºC
NDR-120-48	90~264VAC input, 48VDC/120W output power supply, -20**ºC** ~ 70ºC
NDR-240-48	90~264VAC input, 48VDC/240W output power supply, -20**ºC** ~ 70ºC
HLG-80H-24	90~305VAC input, 24VDC/80W output power supply, IP67, -40**ºC** ~ 70ºC
HLG-80H-48	90~305VAC input, 48VDC/80W output power supply, IP67, -40**ºC** ~ 70ºC
HLG-80H-54	90~305VAC input, 54VDC/80W output power supply, IP67, -40**ºC** ~ 70ºC
HLG-120H-24	90~305VAC input, 24VDC/120W output power supply, IP67, -40**ºC** ~ 70ºC
HLG-120H-48	90~305VAC input, 48VDC/120W output power supply, IP67, - 40**ºC** ~ 70ºC
HLG-120H-54	90~305VAC input, 54VDC/120W output power supply, IP67, -40**ºC** ~ 70ºC
HLG-240H-54	90~305VAC input, 54VDC/240W output power supply, IP67, -40**ºC** ~ 70ºC
AT-SPC-001	30A solar power controller

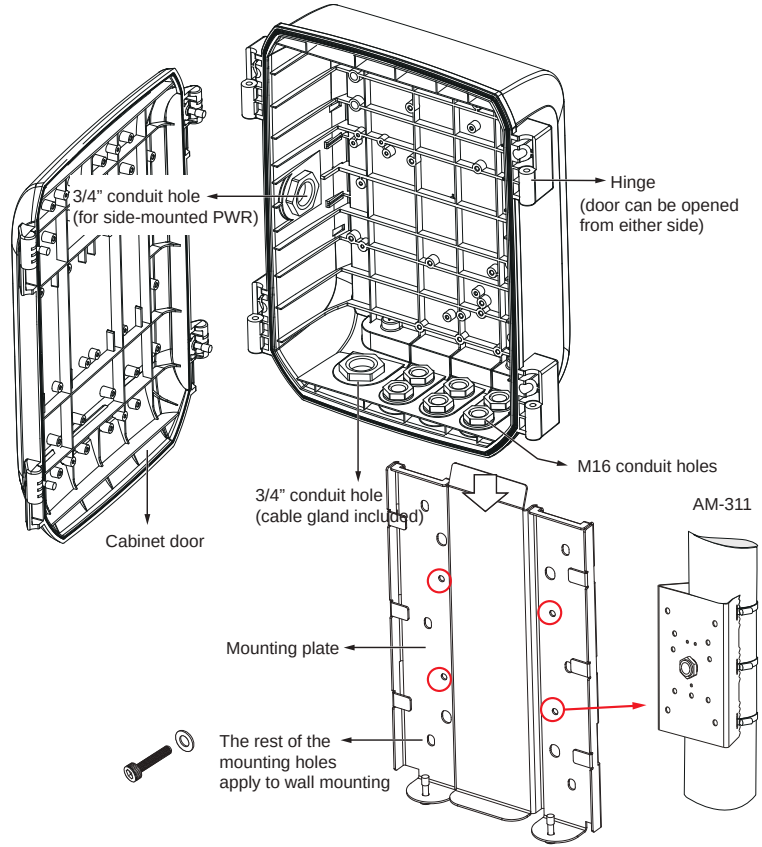
Optional mech. & safety accessories	Models
AT-CAB-002	Side-mount bracket for HLG series power supply
AT-SUN-001	Sunshield for AT-CAx series cabinet
AT-SUN-002	Sunshield for AT-CAx + AT-CAB-002 cabinet
AT-WPC-001	M16 cable gland for cables 4~7mm AWG
AT-WPC-002	M16 cable gland for corrugated tubing: 1/16"
AT-PSP-001	PoE surge protector
AT-SWH-000	Power safety kit
AT-SWH-002	Door open/close detection switch

Included Parts

Item	Specs	Quantity		Item	Specs	Quantity	
Screw	M3x4	2		Terminal block		1	
Screw	M3x8	10		Terminal block bracket		1	
Screw	M3x12	4		Routing bracket		2	
Screw	M3x14	2		DIN rail bracket		1	
Screw	M4x6	4		Door alarm detector pole		2	
Screw	M4x8	15		Fiber optic holder		3	
Cable gland	3/4"	1		Sleeve anchor		4	
Wire holder	KTCC-6	6					
Wire holder	KTCC-9	6					
L wrench	T30	1					
Cable tie	32cm	4					
Cable tie	22.5cm	4					

II Introduction

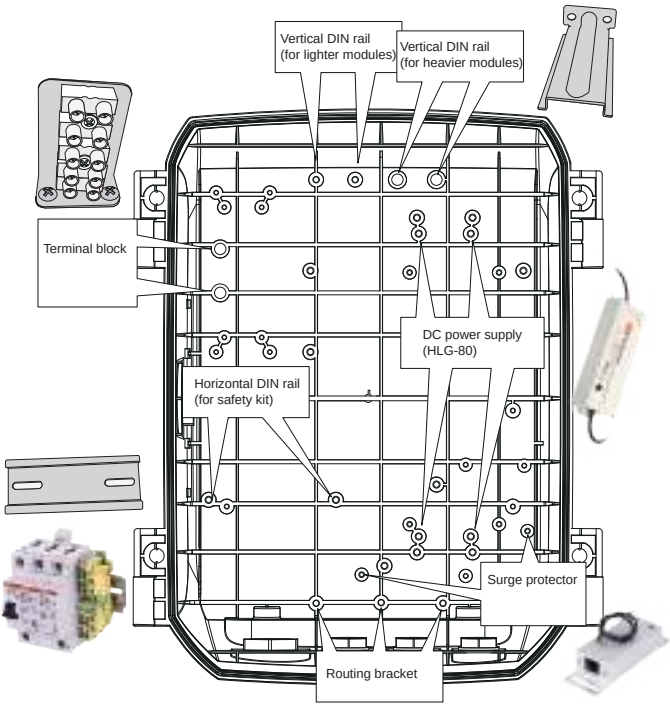
The cabinet can be installed to a wall, a corner-mount (AM-411), or a pole-mount (AM-311) bracket.



You can use the unused mouting holes for installing several cable clamps for routing the cables.

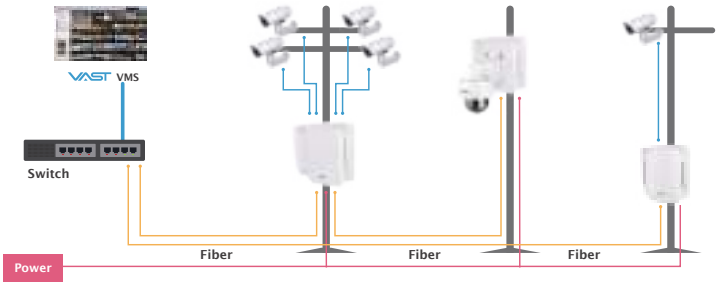
III Installation

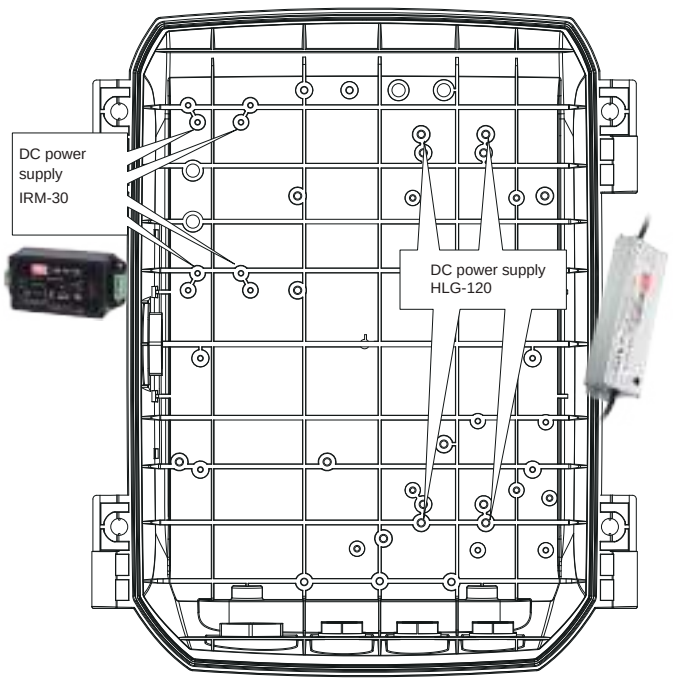
The cabinet provides various mounting positions for different devices. The positions are shown shown in the following diagrams.

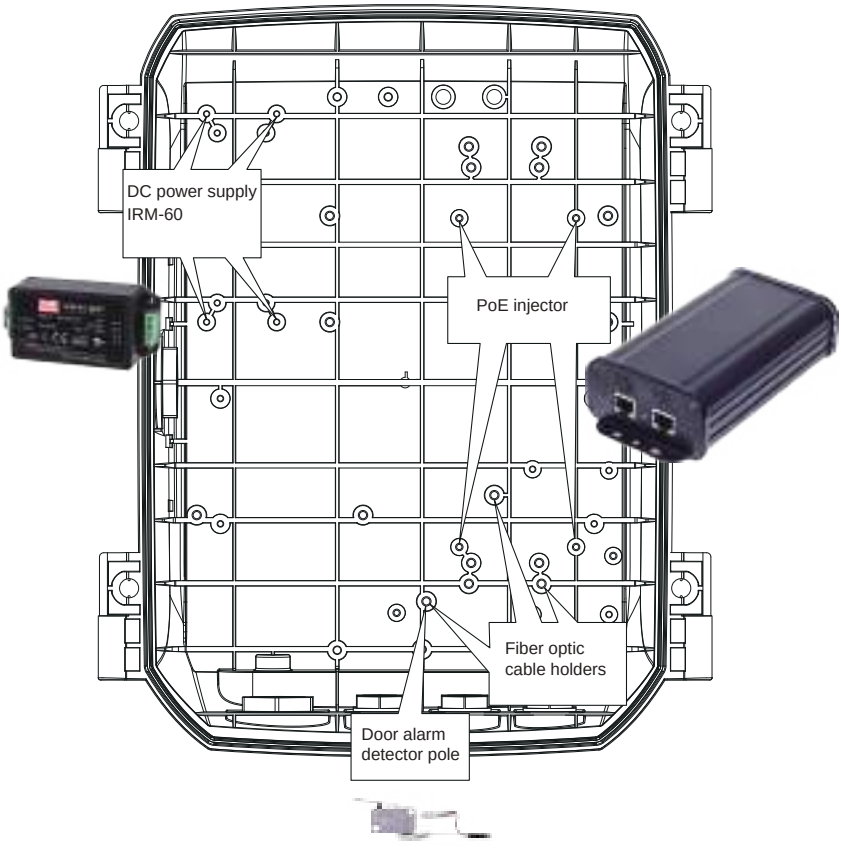


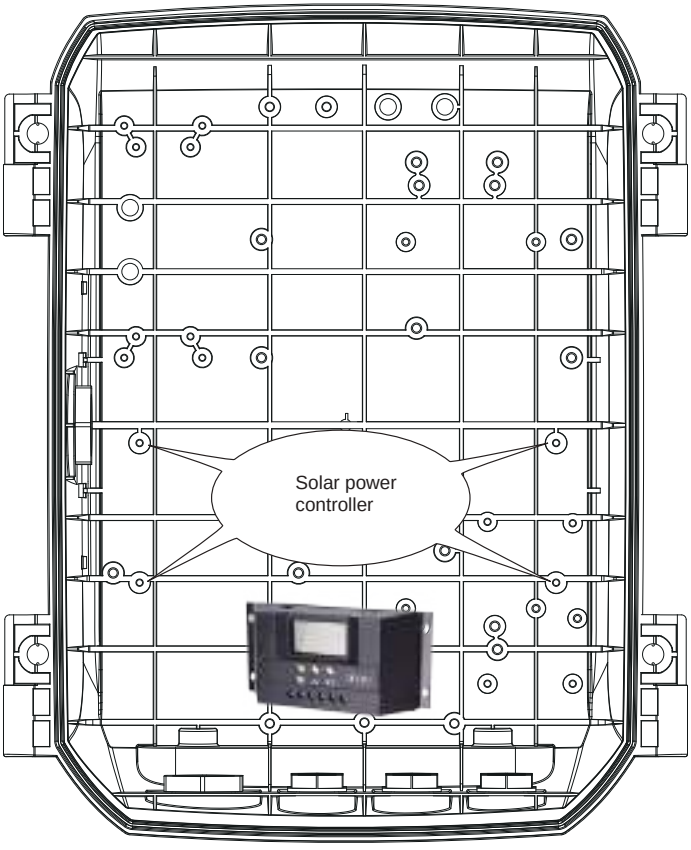
The combination and the choice of components within the cabinet depends on the cameras you want to deploy using this cabinet. Select your devices with the consideration of power consumption, cabling distance, the number of cameras, the opertating temperature, and so on. Multiple devices can be stacked as along as the space within the cabinet allows.

Application

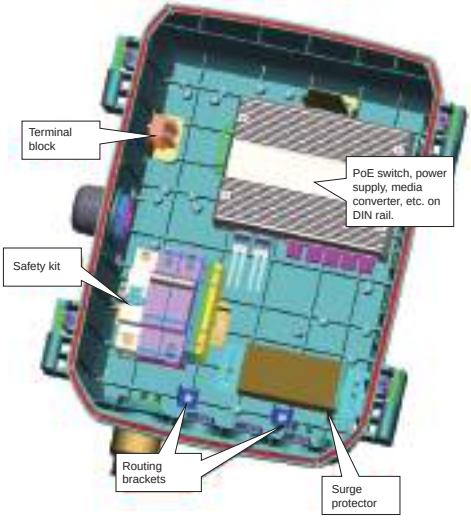


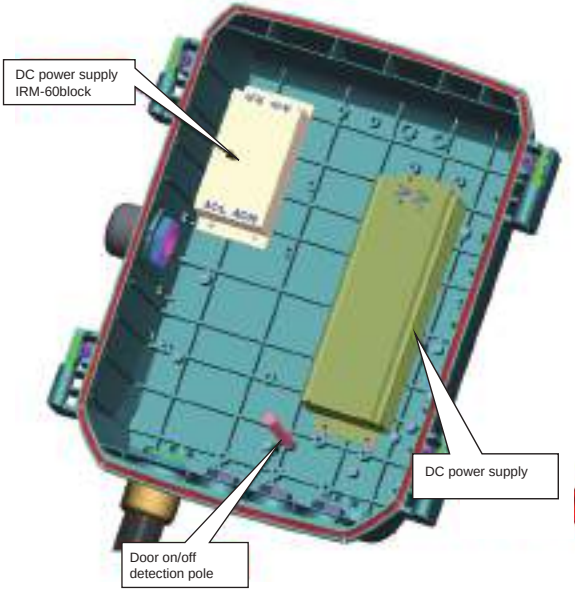



DC power supply
IRM-60
PoE injector
Fiber optic
cable holders
Door alarm
detector pole

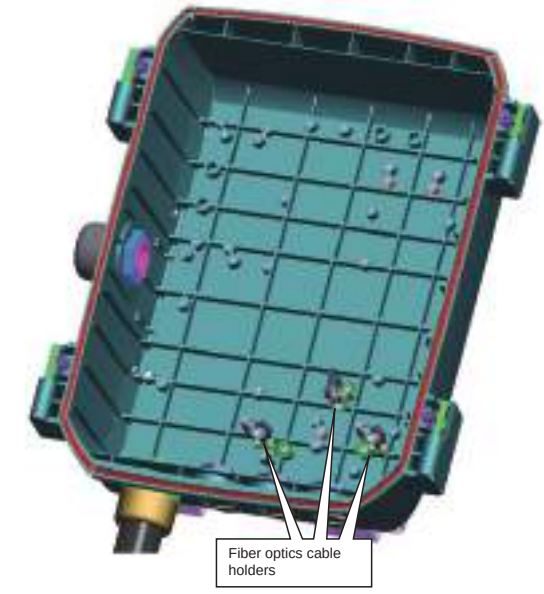

Solar power
controller

Below are some of the configuration samples.

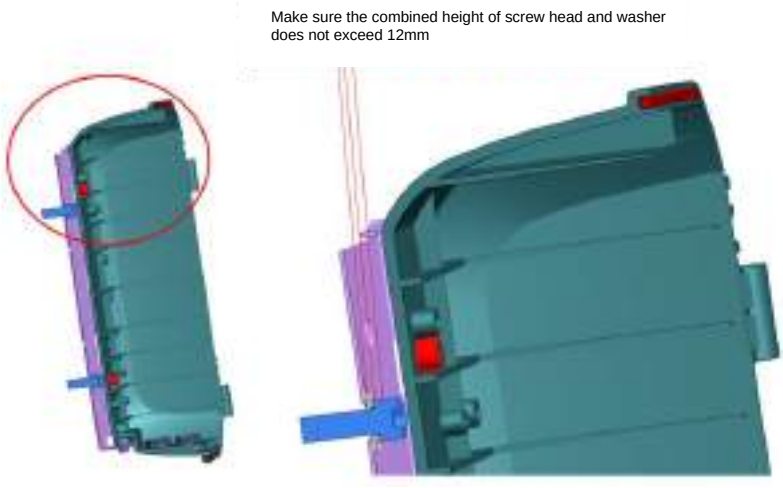




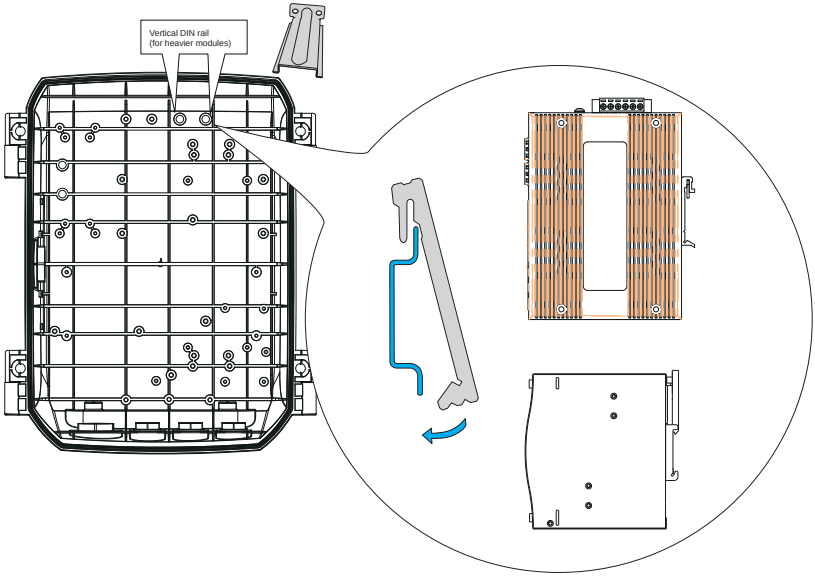
If fiber optics cables are used, install the cable holders for the bend radius concern.



IMPORTANT: Shown below is the status of a cabinet mounted on top of the mounting plate. If a different type of mounting screws is preferred, make sure the combined height of screw head and washer does not exceed 12mm.

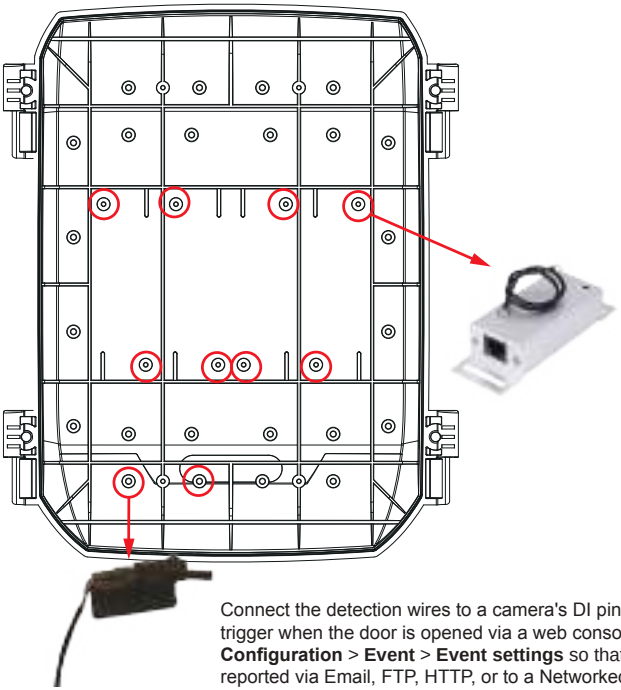


You can install one or two PoE switch, media converter, or industrial power supply to the vertical DIN rail. Please refer to page 2 and page 3 for information.

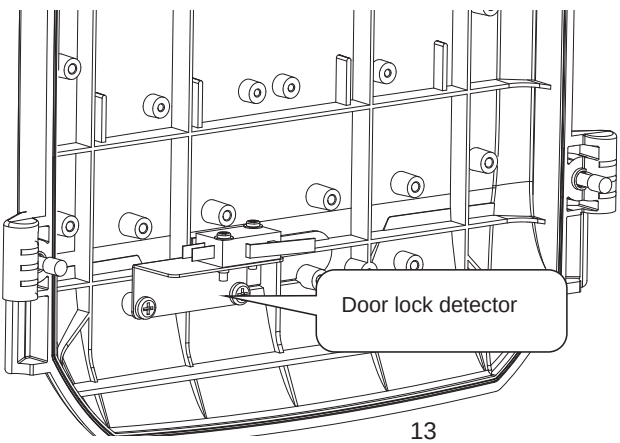


Installing Modules to the Cabinet Door

The cabinet door can be used for housing the Ethernet surge protectors. Use the mounting holes on the cabinet door for surge protector and the door switch detector. Note that a hex pole should be installed in the cabinet if the door switch detector is installed.



Connect the detection wires to a camera's DI pins. Configure an event trigger when the door is opened via a web console with the camera in **Configuration** > **Event** > **Event settings** so that an intrusion can be reported via Email, FTP, HTTP, or to a Networked storage.



The event configuration screens should look like the following:

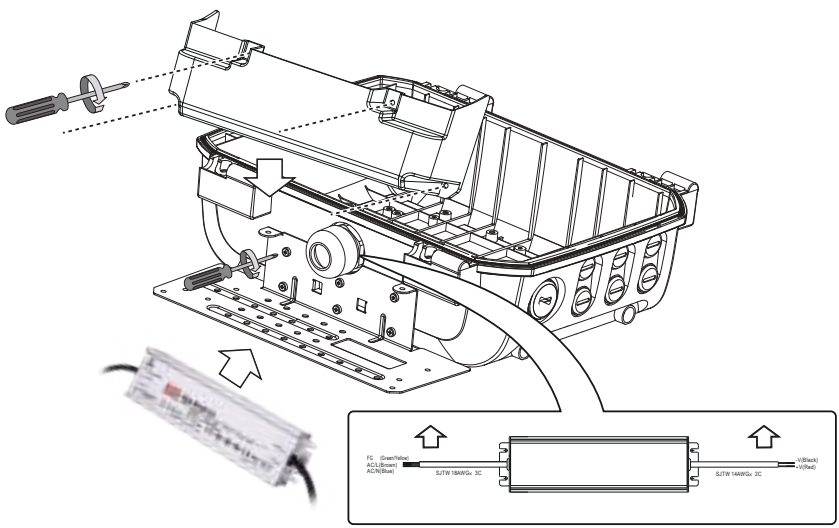




Side-mounting a Power Supply

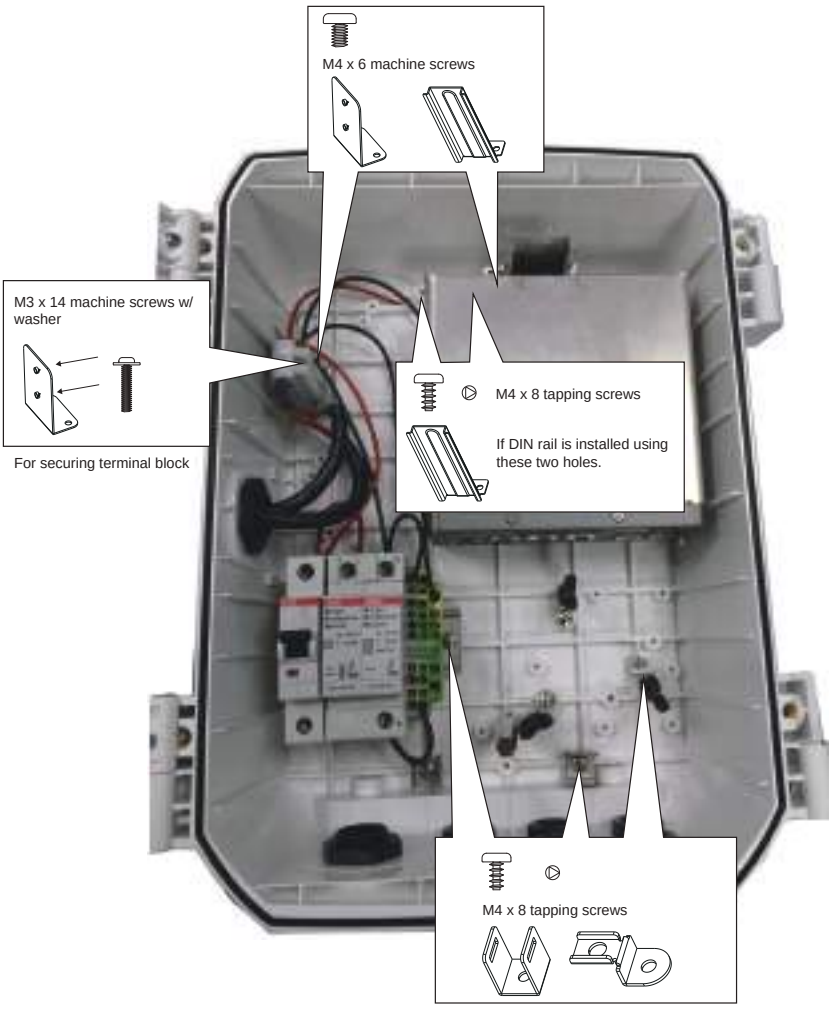
The HLG-120H and HLG-240H power supplies can be side-mounted using an additional bracket to side of the cabinet. Secure the side bracket using 6 included screws, feed the cables through the 3/4" cable gland, and then secure the power supply to the bracket. The power supplies are weatherproof.

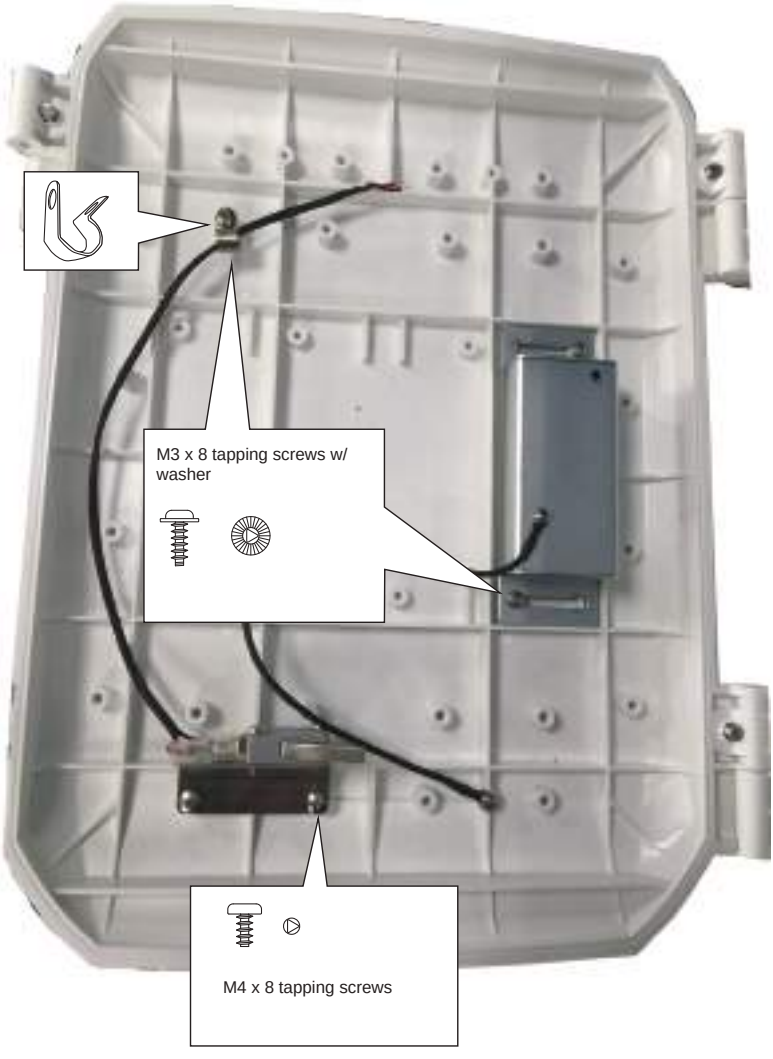
When finished, secure the plastic top cover.

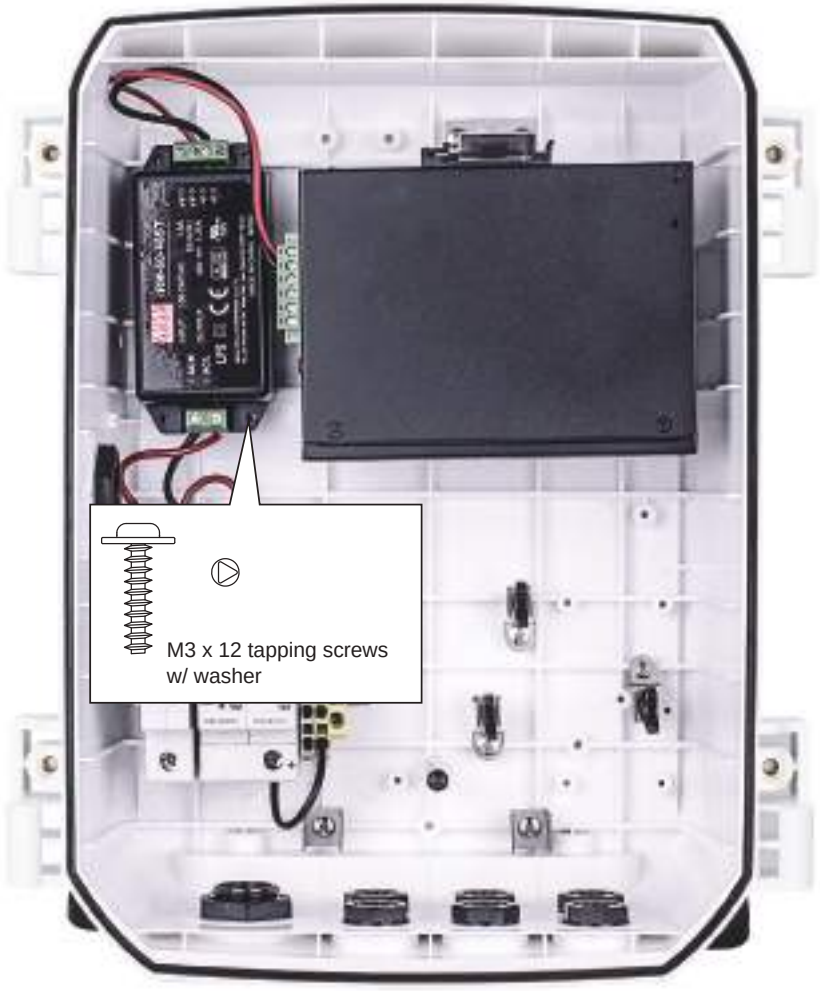


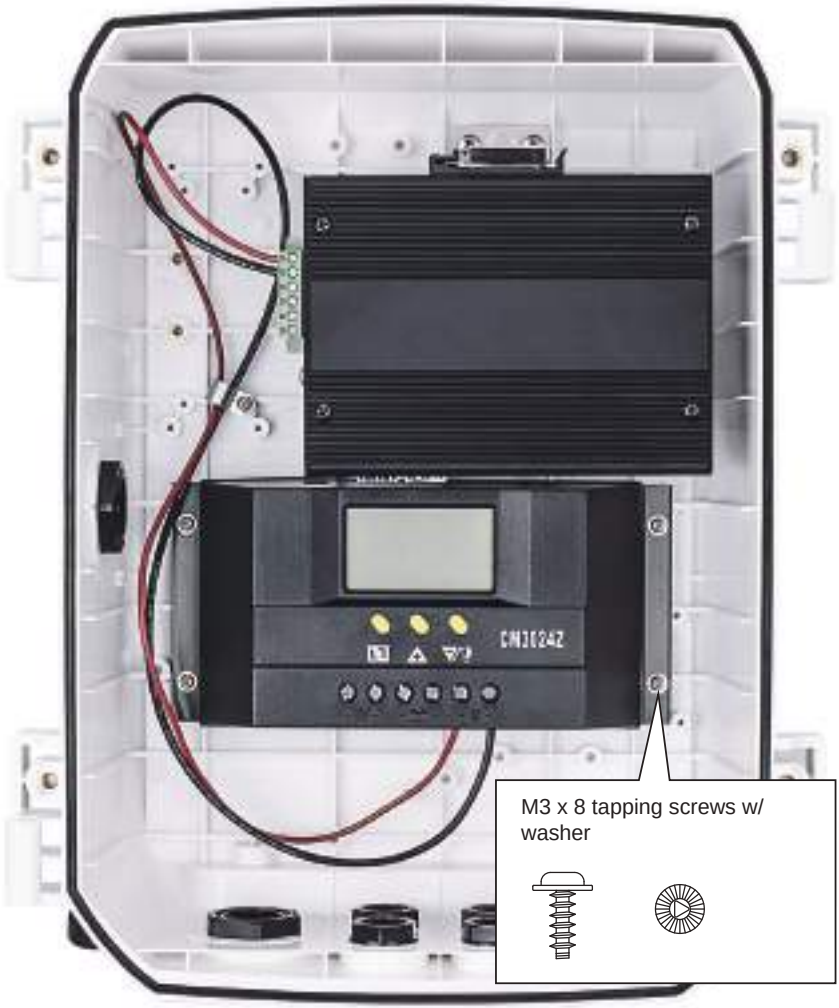
Screw Types

Refer to the diagrams below for the different types of screws and their applications.




M3 x 8 tapping screws w/ washer
M4 x 8 tapping screws

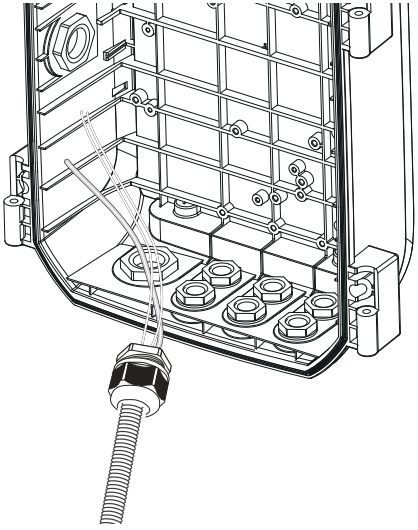

M3 x 12 tapping screws
w/ washer


M3 x 8 tapping screws w/ washer

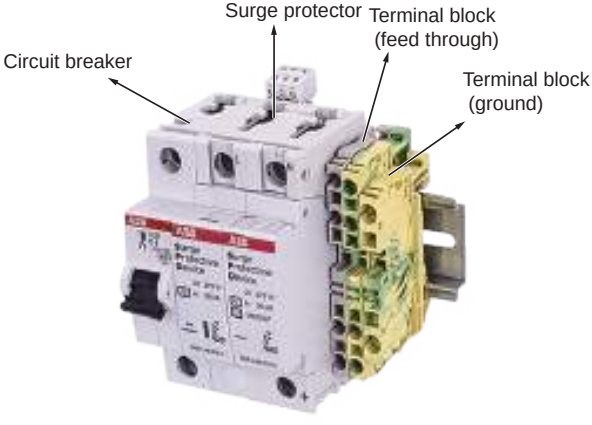
IV Wiring & Connections

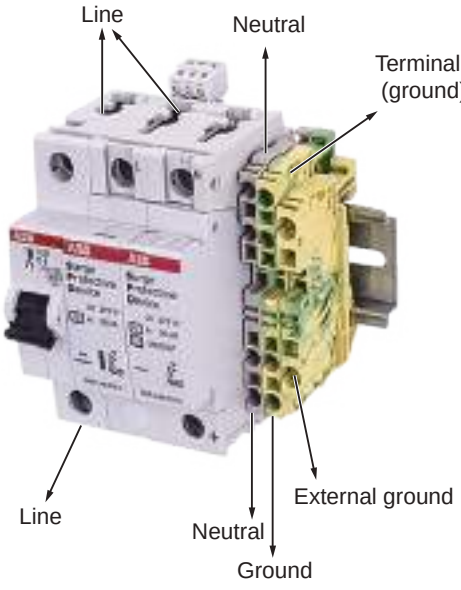
Insatll 3/4" and M16 cable glands and cable conduits to protect the cables and the wiring to the outside of the cabinet. Properly install the cable glands so that the product's IP rating is maintained. If not properly installed, water may seep into the cabinet, causing damage to devices inside.

The conduits are user supplied. The cabinet comes with 1 3/4" cable gland only.



Below are the instructions for wiring a safety kit combination that includes a circuit breaker, surge protector, and terminal blocks.

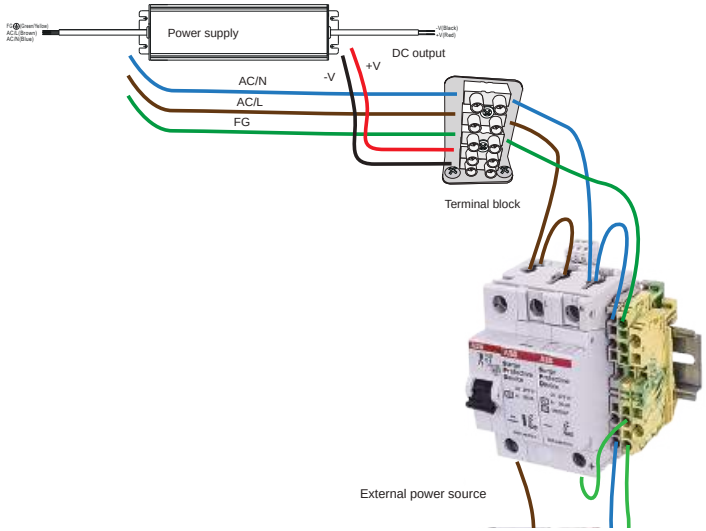




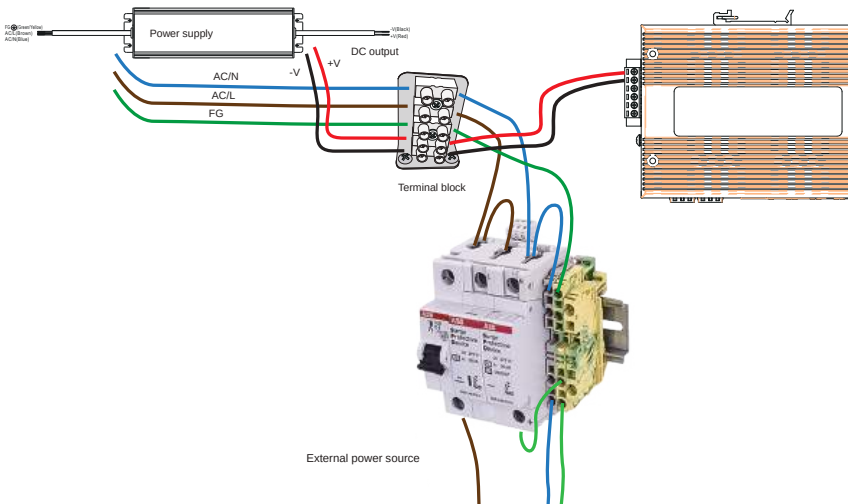
Cable Gauge:

Surge protector:	solid wire, 2.5 to 25mm^2 striping length: 12.5mm
Circuit breaker:	Cross-section of conductors (top/bottom) - solid wire, 35mm^2; Flexible, 25mm^2, 14 - 4 AWG Cross-section of busbars (top/bottom) - 10mm^2; 14 - 8AWG
Grounding Terminal block:	Cross-section of conductors (top/bottom) - solid wire & flexible, 30~12mm^2; 0.2~2.5 AWG

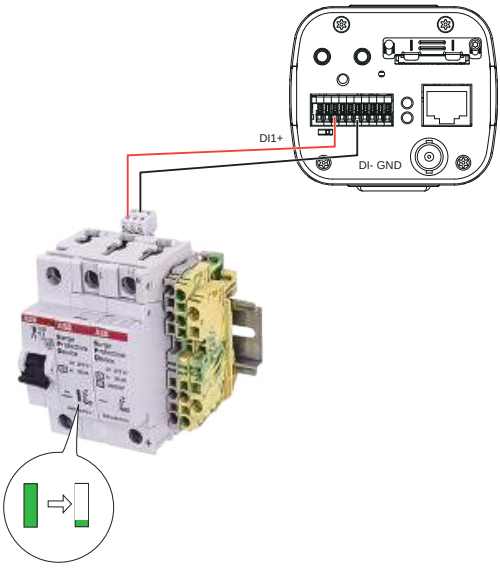
Below is a sample connection drawing showing the use of a 120V or 240V to DC power supply, and the connection to a safety kit.



The DC output from the power supply then drives a PoE switch as shown below.



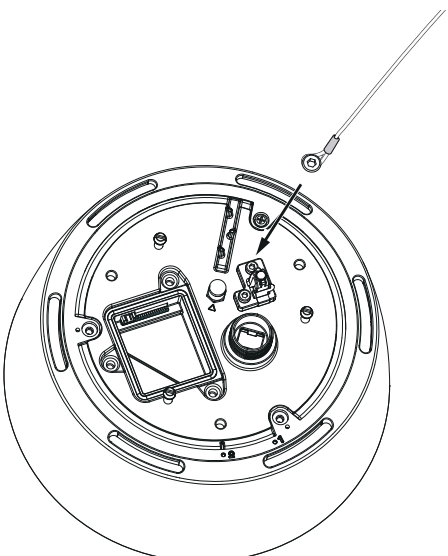
The surge protector becomes worn out after surges. When the indictor widnow changes color, replace the protecor. You can connect wires from its alarm terminal to a camera's DI pins so that you can receive notifications when the protector becomes worn out. Check the surge protector especially after lightning strikes. You can revceive the related alarm by configuring an event via Email, FTP, etc. via the



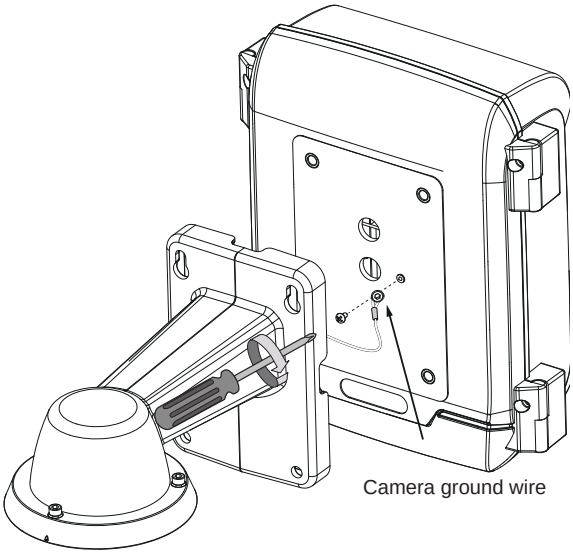
a web console with the camera in **Configuration** > **Event** > **Event settings**. Please refer to the documentation that came with your camera.

Camera Grounding Connection

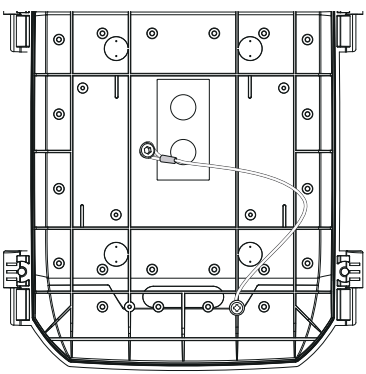
Connect a ground wire to the screws near the safety wire.



Connect the ground wire to the copper screw hole on the cabinet door.



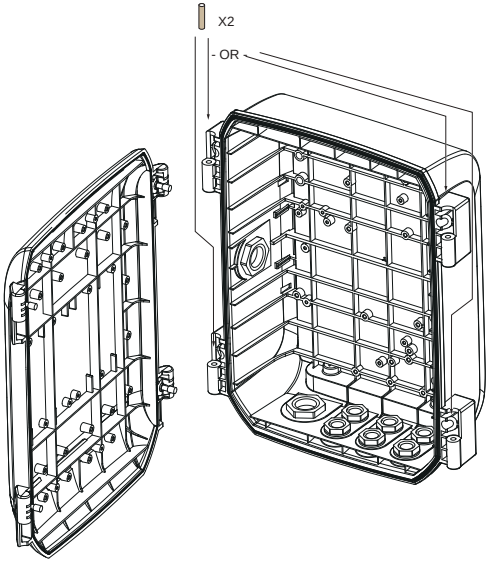
Connect all ground wires (including those from the surge protectors) to one position on the cabinet door,to the terminal block, and then to the external ground.



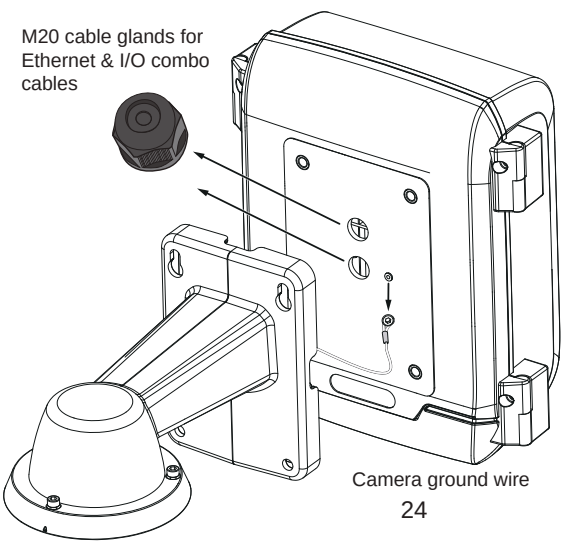


Installing Camera

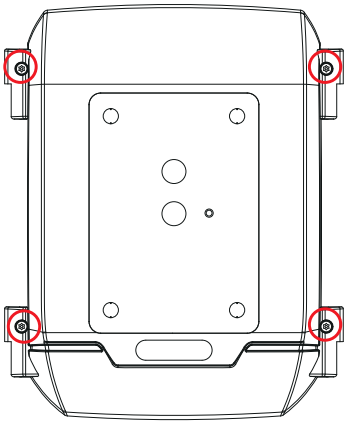
Depending on the side you prefer to open the cabinet, insert two hinge pins to hinges on the oppposite, either on the right or the left side of the cabinet. Align and install the cabinet door.



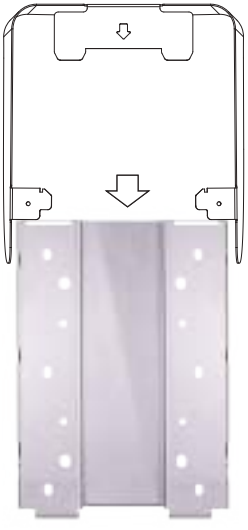
Pass the Ethernet and I/O combo cables through the M20 cable glands, and into the cabinet. You may need to open the cabinet. Secure the camera mount bracket (here a speed dome bracket is shown) to the cabinet. You can then install the camera. Refer the camera's documentation for information.

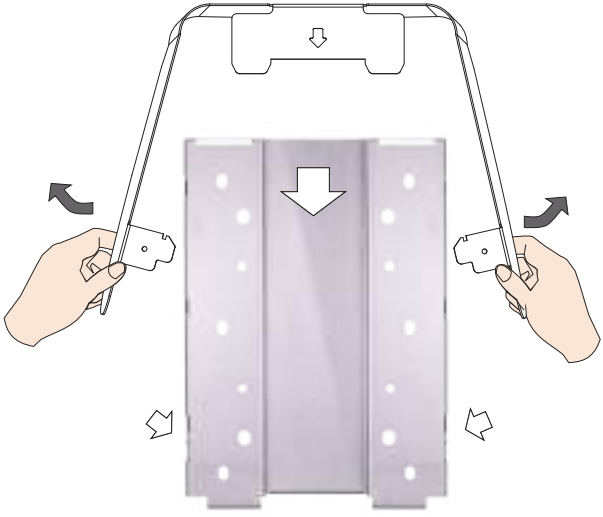


Secure the T30 anti-tamper screws on the cabinet door.



If a sun shield is applied, install the sun shield by extending long edges of it to fit into the openings on the sides of the mounting plate.





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