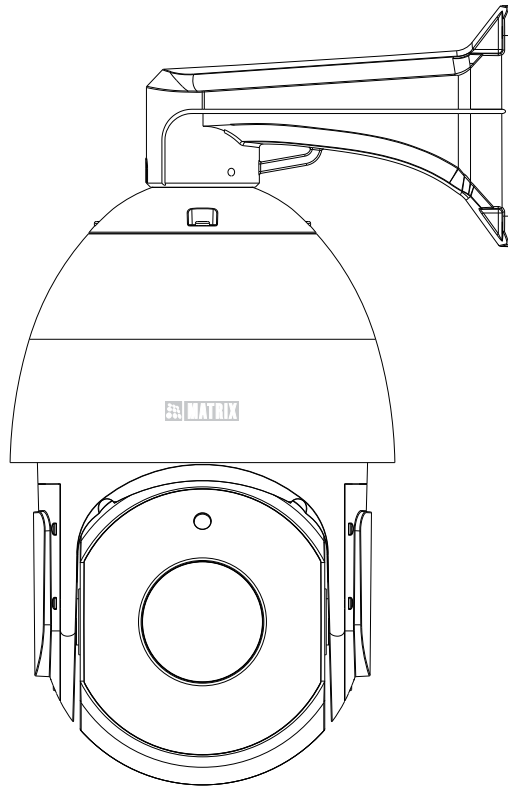


SATATYA PTZ IP-Camera

The Persistent Vision



Safety Instructions

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

Cautions

- Ensure that the power supply voltage is correct before using the camera.
- Avoid placing cables too close to magnetic or high voltage devices, to reduce undesirable image noise.
- Do not touch the front glass/lens with fingers. For cleaning use 'clean cloth' and wipe it gently.
- Do not mount the camera with the lens facing the sun or bright light to prevent damage to the sensor.
- Do not expose the camera to temperatures below or beyond its specified operating temperature.
- Do not mount the camera near a radiator or a heater.



Warning

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the region and nation.
- If smoke, odour or noise rise from the device, turn off the power at once and unplug the power cable, and contact the nearest service center.
- Do not run Ethernet cables along with AC Power cables. The Power and signal cables (ethernet wiring between Ethernet Switch and IP camera) should run separate. If unavoidable then the separation distance between Ethernet cable and Mains cable should be > 6 inches (within the premise building) and > 1 meter outside the premise building.
- Make sure the Ethernet cable length does not exceed 100m.
- For outdoor wiring use braided shielded Ethernet cable or run the cable through a metal pipe. Make sure braided shield/metal pipe are grounded (earthed) at both ends.

Contents

Know your Camera	6
What your Package Contains	7
Things you will Need	7
Camera Variants	7
Installation	9
Installing Mounting Template	10
Mounting the Camera	12
Adjusting the Camera Angle	15
Ingress Protection Accessory Installation	17
Connecting Cables	19
Accessing Reset Switch & SD Card Slot	22
Network Configuration	23
Accessing via Web Browser	24
Technical Specification	27

Please read this guide first for correct installation and retain it for future reference. The information in this guide is prevailing at the time of publication. However, Matrix Comsec reserves the right to make changes in product design and specifications without prior notice.

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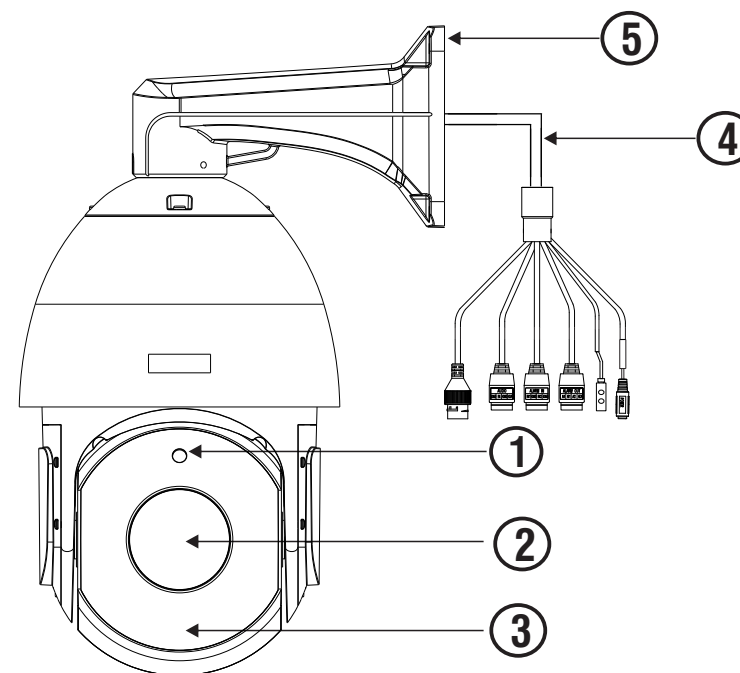
Warranty

Limited Warranty. Valid only if primary protection is provided, mains supply is within limit and protected, and environment conditions maintained within product specifications.

Complete warranty statement is available on our website:

www.matrixcomsec.com

Know your Camera



1. Light Sensor
2. Lens
3. IR LEDs
4. Cable Assembly
5. Wall Mount Unit

What your Package Contains

- SATATYA PTZ IP Camera Unit with Cable Assembly connected
- Ingress Protection Accessories (4 parts)
- Wire Rope with Hooks
- Wall Mount Unit
- Wall Mounting Template
- Screw Pack for Wall Mount
- Screw Pack for Camera Unit
- 24V Power Adapter with a Male DC Jack on the end.
- Cable with 3 PIN Plug at one end and a 3 PIN connector on the other end.

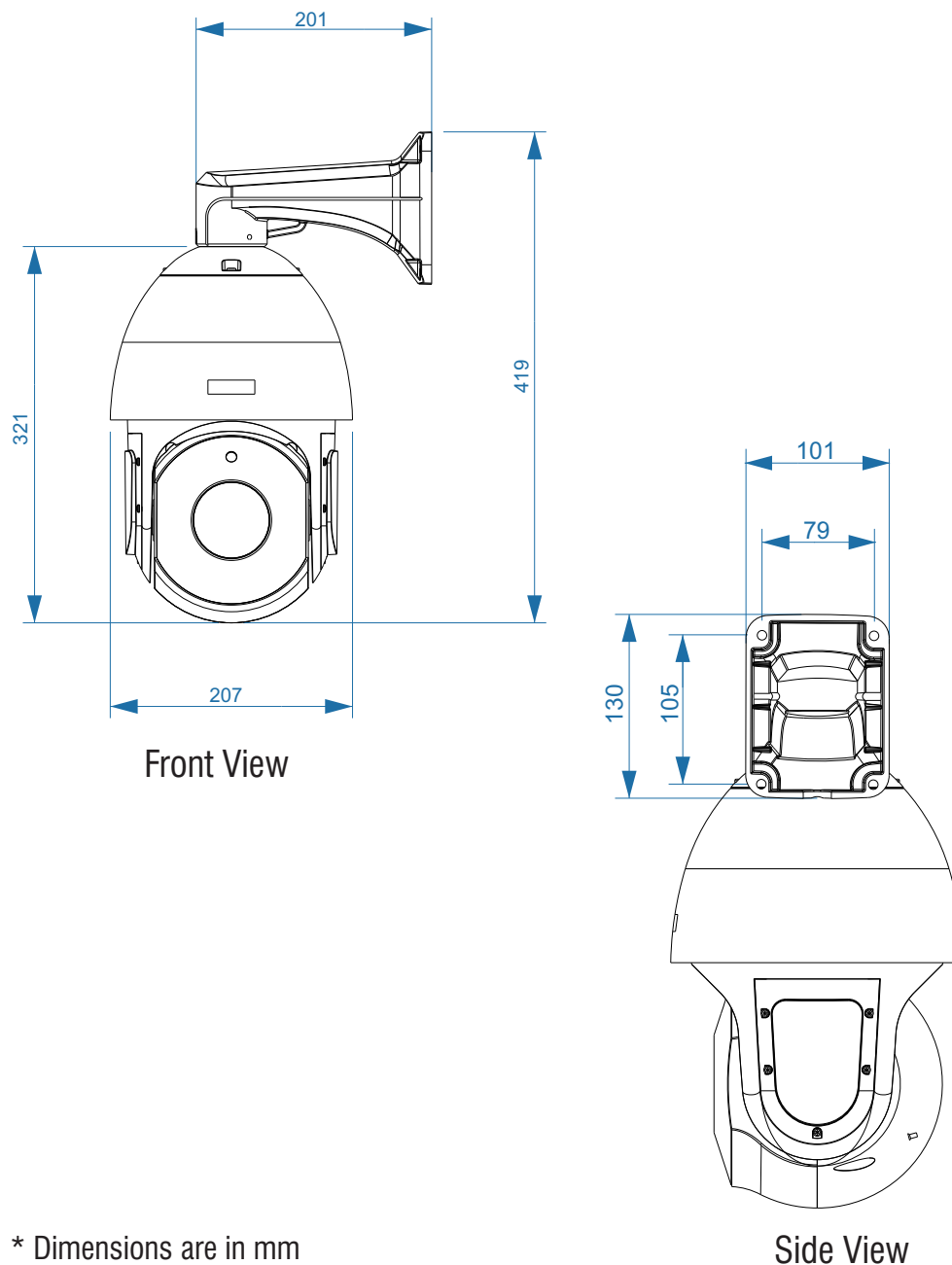
Things you will Need

- A Power Drill, Screwdriver Set, Pliers, Wire-cutter, Ladder
- Necessary Cabling.
- Allen Key (2mm)

Camera Variants

Resolution with Type of Lens	Focal Length(mm)	Premium
2MP & 5MP		
Zoom_2MP_38x	4.4mm-169mm	PTZ2040P
Zoom_5MP_38x	4.4mm-169mm	PTZ5040P

Camera Dimensions*



* Dimensions are in mm

Installation Instruction

The wired LAN hub providing Power over the Ethernet (PoE+) in accordance with IEEE 802-3at shall be a UL listed device with the output evaluated as a limited power source as defined in UL60950-1 or Ps2 as defined in UL62368-1.

Installation

Before you start

Please make sure,

- The device in the package is in good condition and all the assembly parts are included.
- All the related equipments are powered-off before installation.
- The wall or ceiling is strong enough to support the weight of camera.

Step 1: Select a Location

- Select a suitable location for your camera to enable coverage of the intended surveillance area. The location should preferably be a flat surface, such as a Wall or a Ceiling.

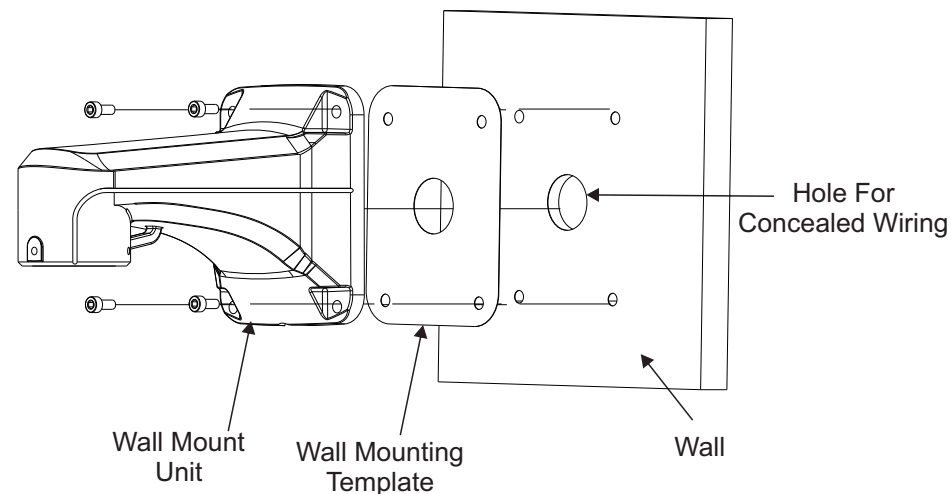
Step 2: Prepare for Installation

- The camera can be powered by PoE+ Switch.
- Provide proper connectivity between camera and recording location through LAN cable. The length of the cable between the camera and LAN Switch should not be more than 100 meters.
- It is advisable to make concealed wiring. However, wiring can also be done externally. Refer to Safety Instructions > Warnings for details.

Step 3: Installing Mounting Template

- Stick the Mounting Template at the exact location of camera installation.
- Drill four holes on the sides through the markings provided on the Mounting Template.
- Insert the screw grips in the holes you drilled.
- In case of concealed wiring, a separate hole has to be drilled in the center for cable outlet. See **Figure 2**.

Figure 2



Step 4: Arranging the cables

For External Cabling

- Pass the cables through the Wall Mount Unit and then turn the cable downwards to pass them through the hole provided at the bottom end of the Wall Mount Unit. See **Figure 3a**.

For Concealed Cabling

- Pass the cables through the Wall Mount Unit and then pass it through the hole drilled in the wall. See **Figure 3b**.

Figure 3a

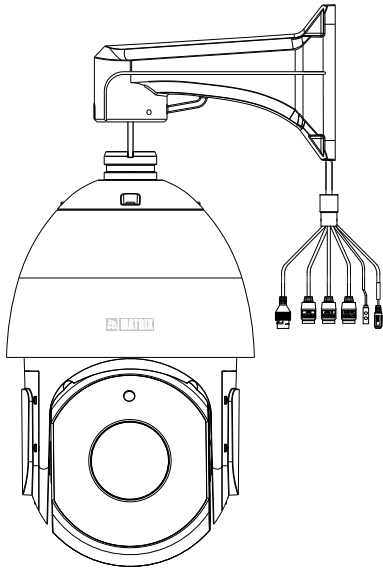
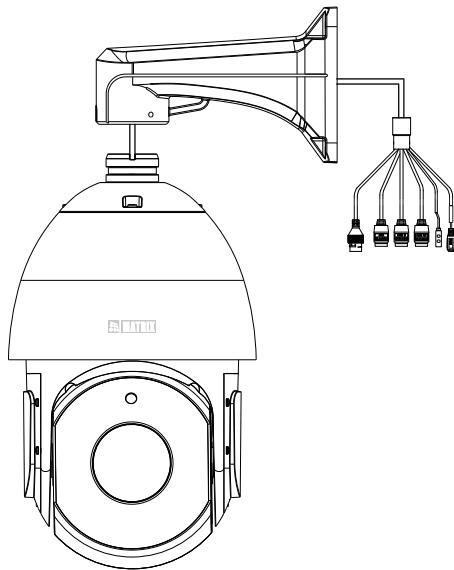


Figure 3b

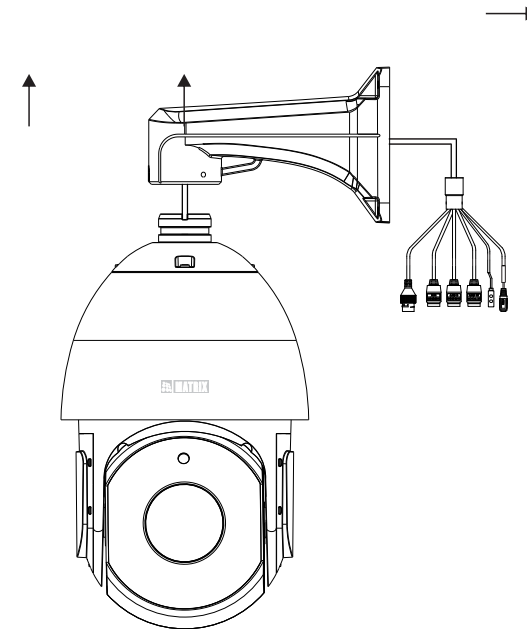


Step 5: Mounting the Camera

Wall Mount

- Align the camera body with the Wall Mount Unit and match the camera screw holes with that of the Wall Mount Unit holes. Tighten the three screws to affix the camera body with the Wall Mount Unit. See **Figure 4** and **Figure 5a**.

Figure 4



- To ensure a secure hold between the Camera body and Wall Mount Unit, use the Wire Rope. The Wire Rope has hooks at each end. There are two loops - one on the Wall Mounting Unit and the other on the Camera body. Press each hook and slide it into the respective loops. See **Figure 5b**.

Figure 5a

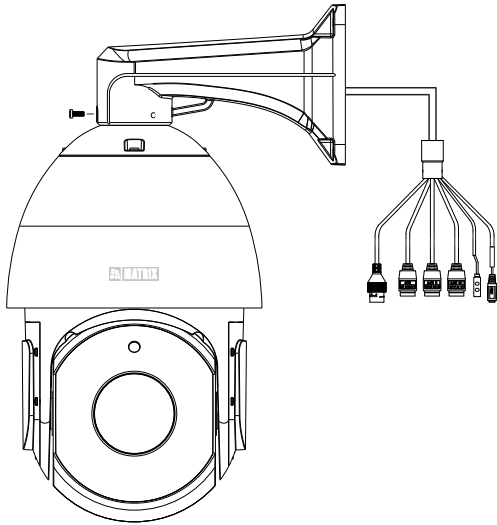
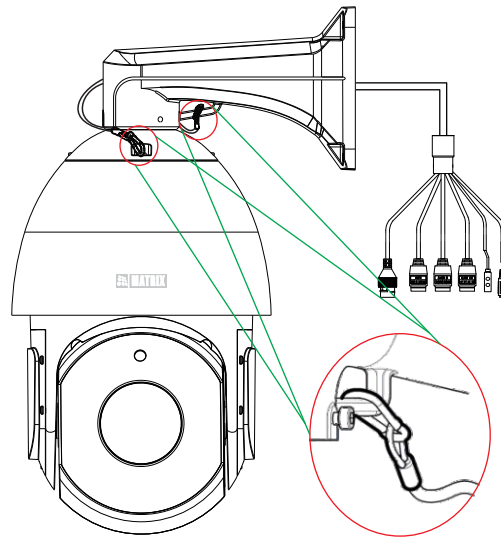


Figure 5b



Ceiling Mount

- You can mount the camera on the ceiling using the Ceiling Mount Unit (not provided by Matrix).
- Mark the holes on the using the Ceiling Mount Unit and then drill the holes. See **Figure 6a**.
- Pull the cables upwards through the Ceiling Mount Unit and align the camera body with the Ceiling Mount Unit .
- Match the camera screw holes with that of the Ceiling Mount Unit holes. Tighten the screws using a screw driver to affix the camera body with the Ceiling Mount Unit. See **Figure 6b**.
- Now, align the Ceiling Mount Unit with the camera affixed with the screws holes on the ceiling drilled earlier and then affix the Ceiling Mount Unit with camera to the ceiling using the screws. See **Figure 6c**.

Figure 6a

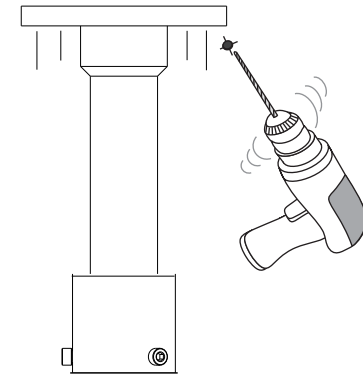


Figure 6b

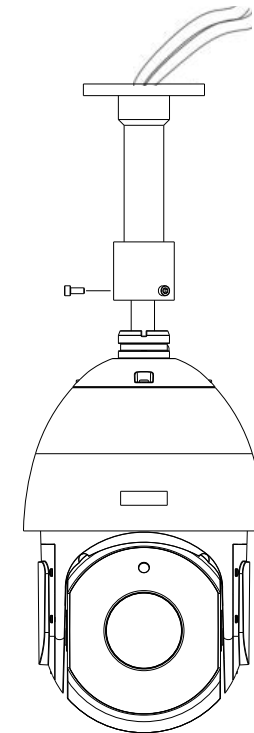
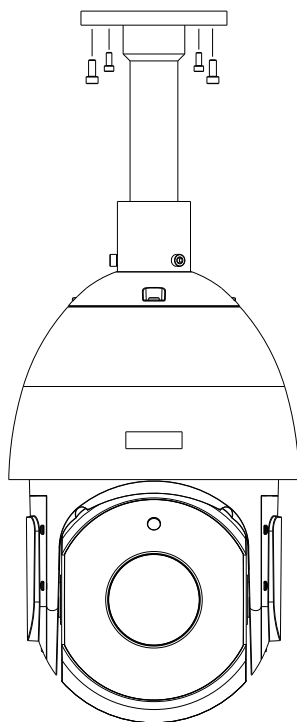


Figure 6c



Step 6: Adjusting Camera - PAN and Tilt

The camera supports automatic adjustment of **PAN** and **Tilt**.

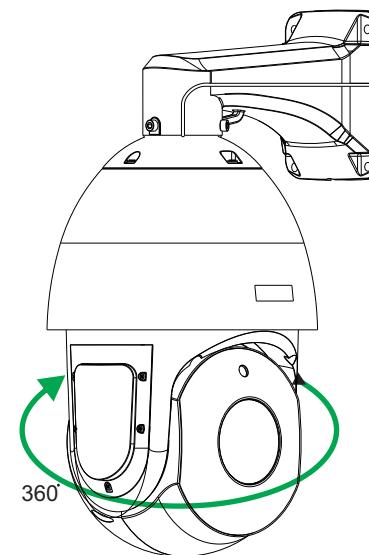
LED: CLASS1 (Category RS1)



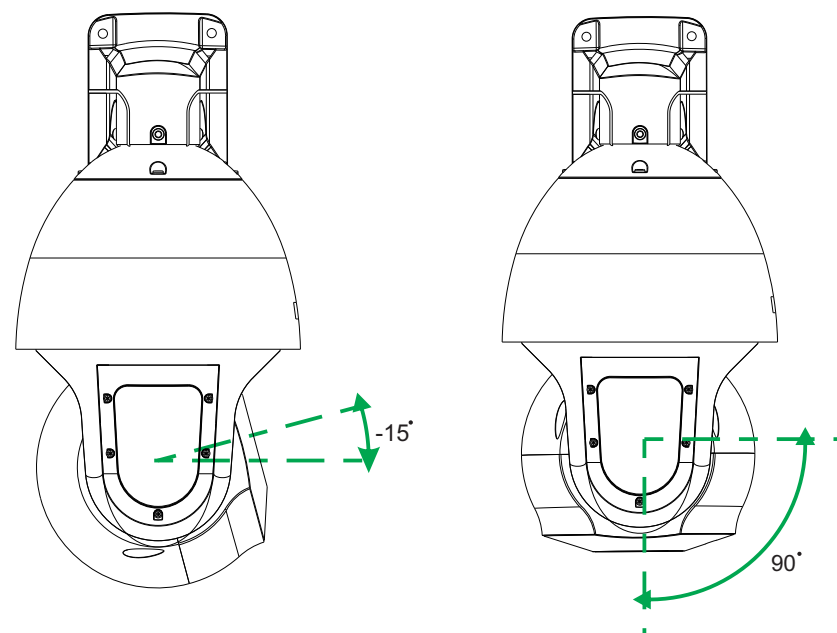
Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.

Use of controls or adjustment to the performance or procedure other than those specified herein may result in hazardous laser emission.

PAN

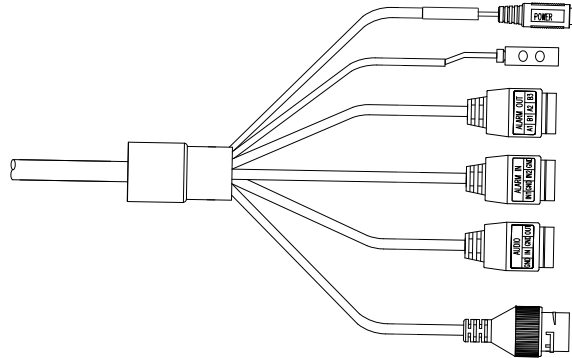


Tilt



Step 7: Ingress Protection Accessory Installation

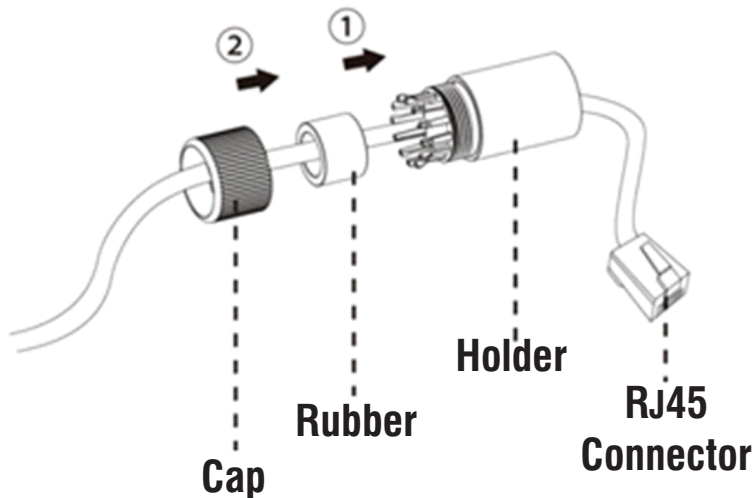
1. You need to connected the Ingress Protection Accessory to the Ethernet Port.



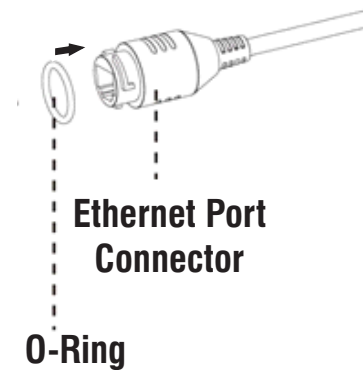
2. The Ingress Protection Accessory comprises of the following: Holder, Rubber, Cap and O-Ring.

You need to pass the RJ45 cable with connector through each in the sequence as shown below.

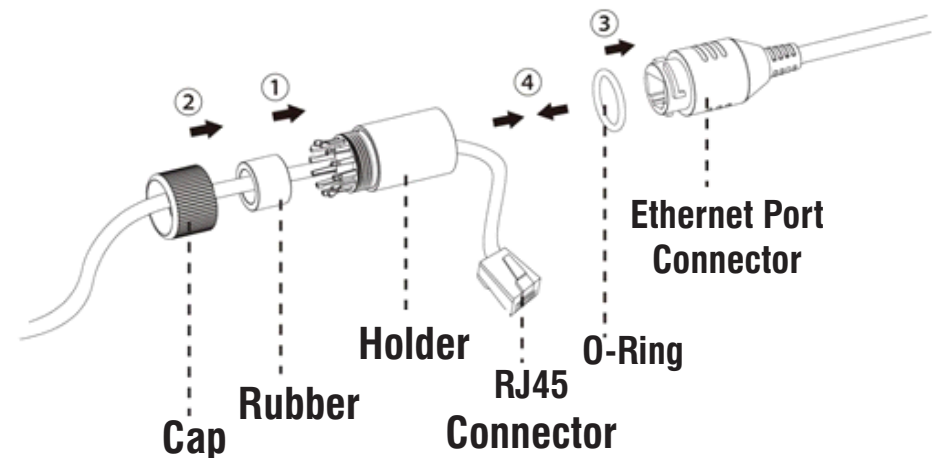
Now, insert the Rubber into the Holder and then place the Cap.



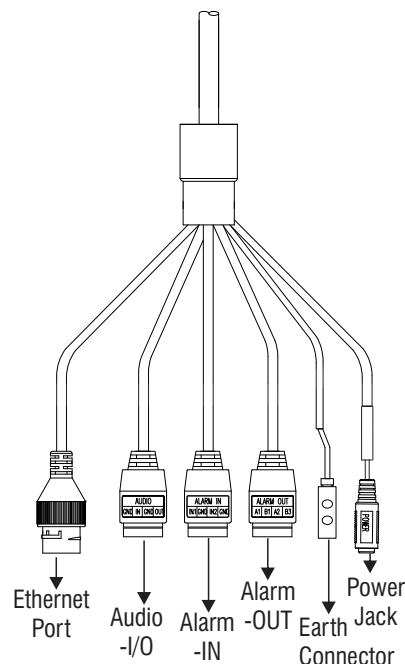
4. Affix the O-Ring on the Ethernet Port Connector.



4. Insert RJ45 Connector into the Ethernet Port Connector as shown below.



Step 8: Connecting the Cables




Ethernet Port: It is used to connect the camera to the computer host or other network equipment. When connecting the network cable, it is recommended that the network cable should not be more than 100m long. This is also used when you need to provide power to the Camera using PoE. You can connect it an Ethernet POE+ Switch.

Audio Input/ Output Cable: You can connect the Audio Input device such as Mic to the Audio Input cable of the camera. The audio when enabled will be recorded with the video and will be available at the monitoring location. You may connect the Audio Output device such as Earphone or Speaker to the Audio Output cable of the camera. This will generate audio received from the network.

Alarm IN Cable: To detect alarm events you can connect a sensor device to the Alarm IN cable of the camera.

Alarm OUT Cable: To get alerts on alarm you can connect the alarm sounding device such as Hooter or Siren to the Alarm OUT cable of the camera.

 If devices such as Mic and Speaker are connected to Audio IN and Audio OUT, you may need to connect an external power source if their power requirements are not fulfilled with the camera adapter.

If devices such as Sensor and small Buzzers are connected to Alarm IN and Alarm OUT, you may need to connect an external power source if their power requirements are not fulfilled with the camera adapter.

Power Jack (Female): It is used for power supply. Insert the Female Jack connector into the Male Jack connector of the Power Adapter. For details refer to Powering the Camera.

Earth Connector: It is used to connect earthing.

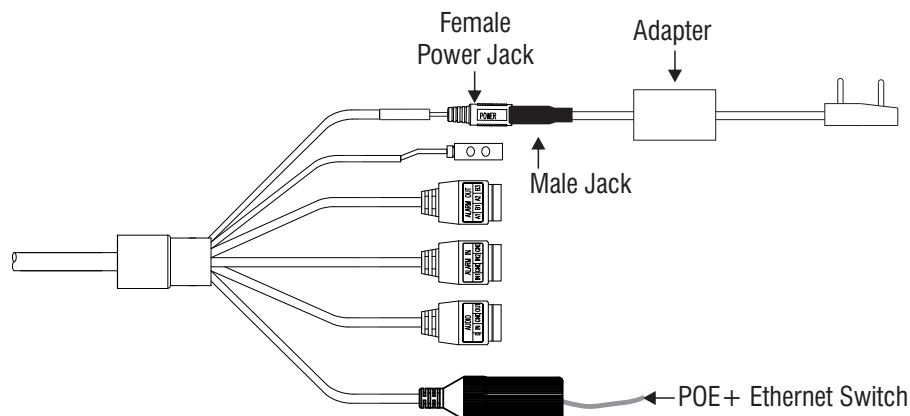
To connect the earth wires to the Earth connector,

- Using a wire stripper tool, strip off a portion of the insulation from the end of the earthing wire.
- Using a screwdriver loosen the screws on the Earth connector.
- Insert the exposed end of the wire into the Earth connector.
- Using a screwdriver tighten the screw securely. The screw will clamp down on the wire holding it in place.
- Tug gently on the wire to make sure it is firmly secured.

Powering the Camera

Power over Ethernet (PoE)

The IP camera is PoE+ compliant, allowing transmission of power and data via a single Ethernet cable connected to PoE+ Ethernet Switch.



You can connect a 24V AC Adapter (not provided by Matrix) or 24V DC Adapter (provided by Matrix). The 24V DC Adapter has a Male Jack connector on one end and 3 PIN slot on the other end. The cable for the Adapter has a 3 PIN Plug at one end and a 3 PIN connector on the other end.

To connect,

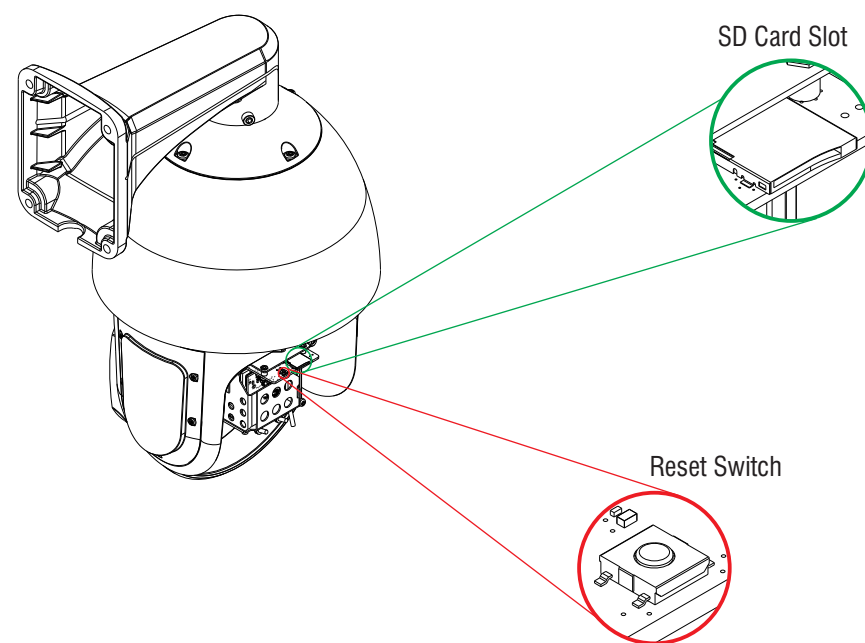
- Insert the 3 PIN connector of the cable into the 3 PIN slot on the Adapter.
- Insert the Male Jack connector of the Adapter into the Female Jack connector of the Assembly Cable.
- Now connect the 3 PIN Plug of the Adapter to the power outlet.

Accessing Reset Switch & SD Card Slot

If you forget the IP Address or Login credentials then the camera can be reset to factory default settings using the Reset Switch.

- Using the Allen Key (2mm) open the 4 screws provided on the rear side of the dome.
- The Reset Switch is located as shown in **Figure 11**. Press the Reset switch for minimum 5 seconds and release the switch to reset the camera to default settings.
- You can insert the SD Card in the slot to store your camera recordings, see **Figure 11**. If you insert the SD Card when the camera is running make sure you reboot the camera.

Figure 11

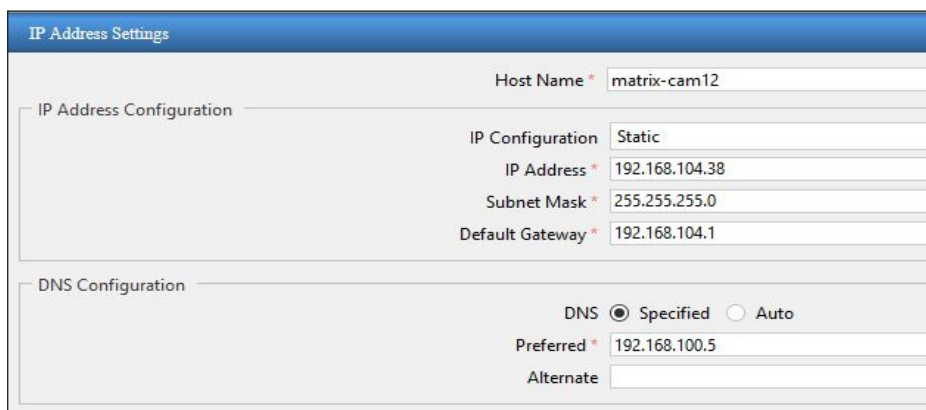


Network Configuration

To view and configure the camera via LAN (Local Area Network), you need to connect the network camera in the same subnet with your PC. Then install the software to configure the IP address.

Steps to get the IP Address

- Once the camera is connected to the network, it will automatically be assigned a dynamic IP address by the DHCP server. You can view the assigned IP address through any IP scanner utility.
- If DHCP server is unavailable or is not able to provide an IP address then **192.168.1.126** will be set as default IP address.
- You can change the IP address and subnet mask of Camera from the Configuration>Network Settings>Basic Settings>IP Address Settings page of camera.



The screenshot shows the 'IP Address Settings' web interface. It has a blue header bar with the title 'IP Address Settings'. Below the header, there are two main sections: 'IP Address Configuration' and 'DNS Configuration'. In the 'IP Address Configuration' section, the 'Host Name' is set to 'matrix-cam12'. The 'IP Configuration' is set to 'Static'. The 'IP Address' is '192.168.104.38', the 'Subnet Mask' is '255.255.255.0', and the 'Default Gateway' is '192.168.104.1'. In the 'DNS Configuration' section, the 'DNS' is set to 'Specified' (radio button selected), the 'Preferred' is '192.168.100.5', and the 'Alternate' is empty.

Accessing via Web Browser

The IP cameras are supported by Microsoft Windows Operating System.

- Run the Web Browser as Administrator.
- In the browser address bar, type the IP address of the camera e.g., 192.168.1.126 and press the Enter key to open the login interface.



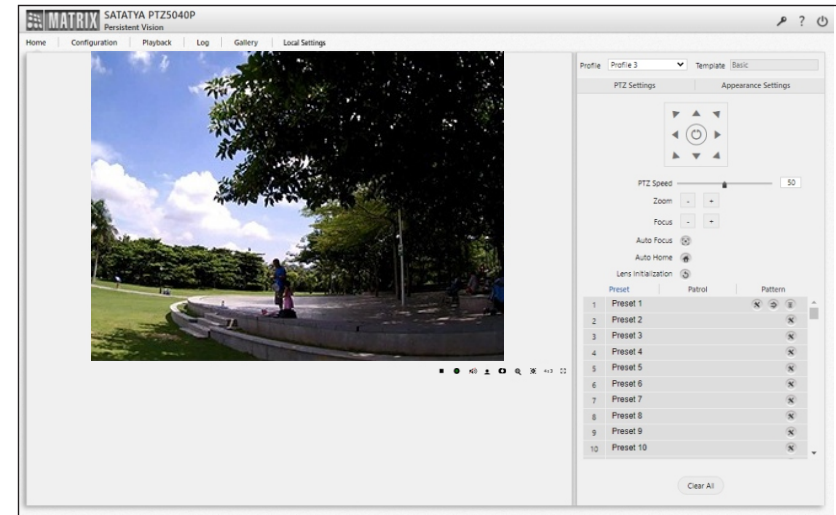
- Enter the User Name and Password.
- By default, you can login with User Name as **admin**, **operator** or **viewer** with the password as **admin**, **operator** and **viewer** respectively.
- Click on Login.

- A pop-up appears as shown below. Click **Install**.



- Another pop-up appears, wherein it seeks your permission.
- Click Yes to allow.

- The Home page of the camera will open and the live view will be displayed.



- The camera configuration can be set from the Configuration tab.

Technical Specification

Specification	Premium Variants
Power Supply	
PoE +	Yes (802.3at, Class 4)
Power Supply	24V DC @2.5A, 24V AC (Optional)*
Power Consumption	Maximum < 25W
Connectors	
Ethernet	Yes
Alarm IN	Yes
Alarm Out	Yes
Audio IN	Yes
Audio Out	Yes
Earthing	Yes
Casting	
Material	Aluminium Die Cast
Colour	Infinity White
Physical	
Dimensions	206.6mm x 329mm (Diameter x Height)
Weight	5.1 Kg (Approx.)

* Not provided by Matrix.

Technical Specification

Specification	Premium Variants
Storage	
NAS	Yes
SD Card	Yes
Software	
ONVIF Profile	S, G, T
Environmental	
Operating Temp.	-30 °C to +60 °C *
Storage Temp.	-30 °C to +70 °C
Humidity	Less than 90%

* With IR LEDs constantly on, the maximum temperature will be +50 °C.

FCC Compliance

This device complies with part 15 sub-part B of the FCC rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 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 of Class A digital device, pursuant to part 15 sub-part B 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 the user will be required to correct the interference at his own expense.

Warning

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.

Certifications

CE	Yes
FCC	Yes
BIS	Yes
IP67	Yes
IK10 (on Metal Housing)	Yes
NEMA 4X	Yes

Disposal of Product after End-Of-Life

WEEE Directive 2002/96/EC

The product referred is covered by the waste Electrical and Electronic Equipment (WEEE) directive and must be disposed of in a responsible manner.

At the end of product life cycle; batteries, soldered boards, metal components and plastic components must be disposed through recyclers.

If you are unable to dispose-off the products or unable to locate e-waste recyclers, you may return the products to Matrix Return Material Authorization (RMA) department.



TELECOM | SECURITY

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