SATATYA Project Bullet IP-Camera
The Persistent Vision

MATRIX

SECURITY SOLUTIONS
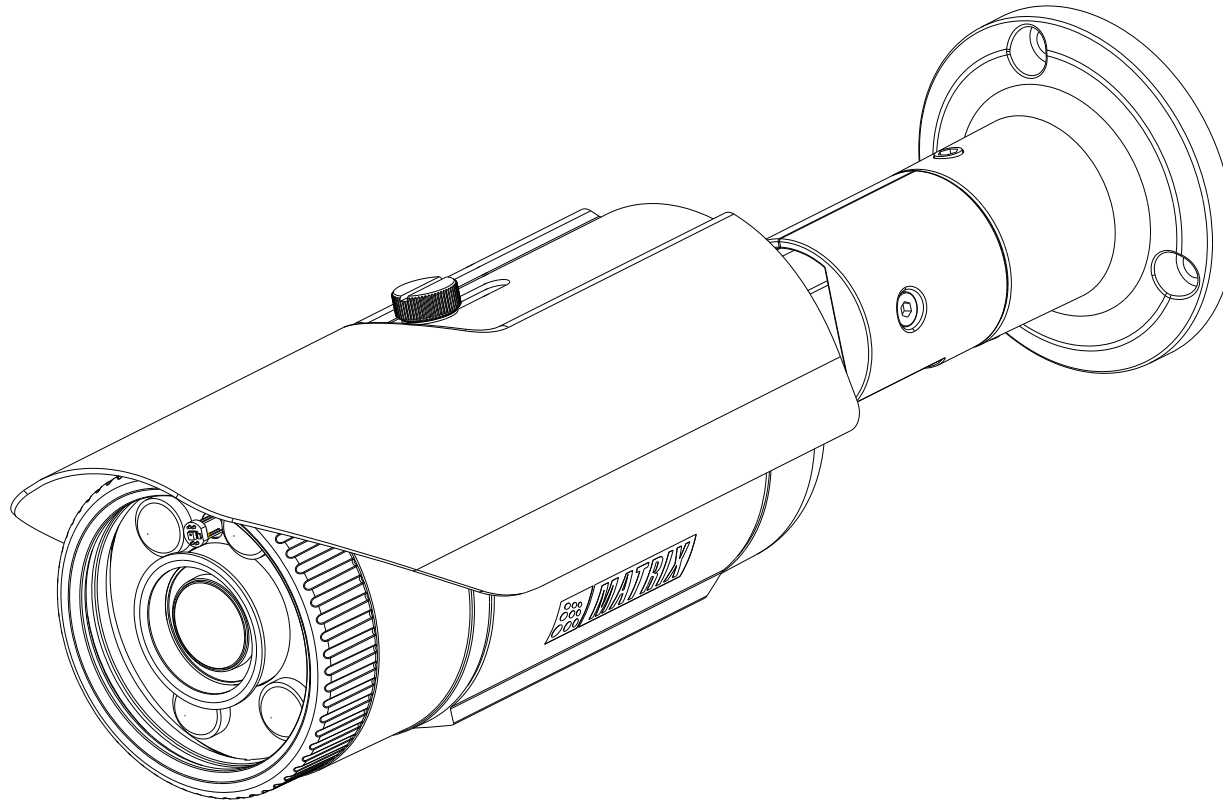
Safety Instructions

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 sensor modules 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 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.
- Do not connect several devices to one power adapter as it may cause over-heating or fire hazard.
- 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.
- To prevent electrical shock, turn off power supply before making electrical connections.

Consignes de sécurité

Ces instructions ont pour but de garantir que l'utilisateur peut Utilisez le produit correctement pour éviter tout danger ou perte de propriété.

⚠️ Précautions

- Vérifiez que la tension d'alimentation est correcte avant d'utiliser l'appareil photo.
- Évitez de placer des câbles trop près d'une tension magnétique ou élevée périphériques, pour réduire le bruit d'image indésirable.
- Ne touchez pas les modules de capteur avec les doigts. Pour le nettoyage, utilisez nettoyer chiffon et essuyez-le doucement.
- Ne montez pas l'appareil photo avec l'objectif dirigé vers le soleil ou vers lumière pour éviter d'endommager le capteur.
- N'exposez pas l'appareil photo à des températures inférieures ou supérieures à ses température de fonctionnement.
- Ne montez pas la caméra à proximité d'un radiateur ou d'un appareil de chauffage.

🔔 Attention

- Dans l'utilisation du produit, vous devez être en stricte conformité avec les réglementations de sécurité électrique de la région et de la nation.
- Ne connectez pas plusieurs périphériques à un seul adaptateur secteur, provoquer une surchauffe ou un risque d'incendie.
- Si de la fumée, des odeurs ou du bruit émanent de l'appareil, éteignez-le une fois, débranchez le câble d'alimentation et contactez le service d'assistance le plus proche centre.
- Pour éviter un choc électrique, éteignez l'alimentation avant de connections electriques.

Contents

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.

Know your Camera
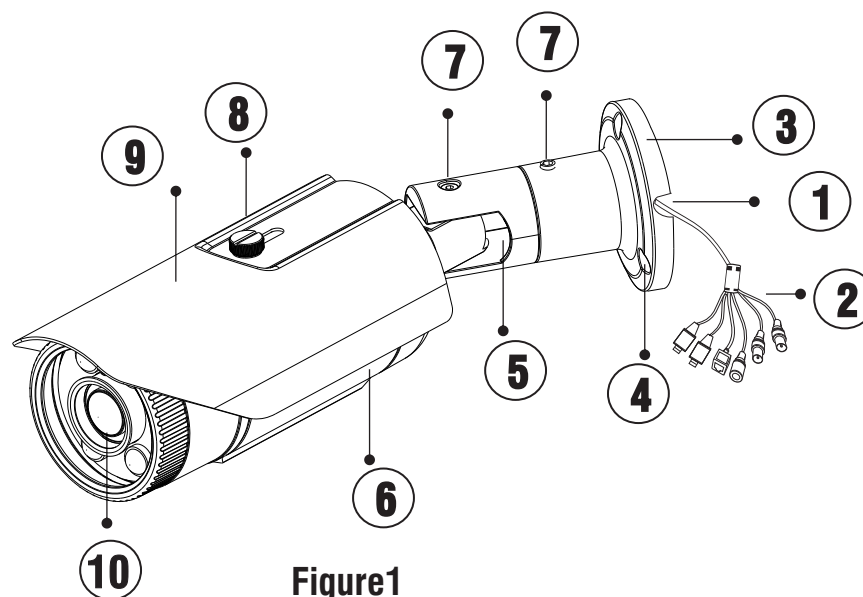
Figure1

1. Cable Guide
2. Cable Assembly
3. Base Plate
4. Hole for mounting
5. Pivot Joint
6. Camera Body
7. Screws for Adjusting Camera Angle
8. Sunshield Bolt
9. Sunshield
10. Lens

The **Standard** variant consists of 2 connectors: Power Connector and Ethernet Connector (POE).

The **Premium** variant consist of 6 connectors: Power connector, Ethernet connector (POE), Audio IN, Audio OUT, Alarm IN and Alarm OUT.

What your Package contains

- Bullet IP Camera Unit
- Wall Mounting Template
- Wall Mounting Screws with Screw Grip (4 nos.)
- Allen Key
- Cable Accessories for weather proofing

Things you will Need

- A Power Drill, Screwdriver Set, Pliers, Wire-cutter, Ladder.
- Necessary Cabling
- A Power Supply with the recommended output voltage of 12V DC. Use an Adapter to connect the camera to the Power Outlet.

Camera Variants

The Bullet Cameras are available in following variants:

1. Standard Variant used for General Surveillance in Discipline/Safety Precaution.
2. Premium Variant used for Objective Surveillance in Entry/Exit monitoring, Periphery monitoring, Productivity monitoring, Unethical practices monitoring.

You can capture near and broader view with lens of 2.8mm and 4.0 mm focal length. For example it can be used in ATM and Elevators.

With lens of 6 mm focal length, far and narrow view can be captured. For example it can be used in corridors or long passage to capture long view.

The 5MP Camera variants are listed in below table,

Type of Lens	Focal Length	Standard	Premium
Fixed	2.8mm	CIBR50FL28CWS	CIBR50FL28CWP
Fixed	4.0mm	CIBR50FL40CWS	CIBR50FL40CWP
Fixed	6.0mm	CIBR50FL60CWS	CIBR50FL60CWP
Manual Varifocal	2.8-12 mm	CIBR50VL12CWS	NA
Motorized Varifocal	2.8-12 mm	NA	CIBR50MVL12CWP

Installation Instruction

1. This product is intended to be supplied by a UL listed power supply unit marked "Class 2" or "LPS" or "PS2" and rated 12VDC, 2A min.

2. The wired LAN hub providing Power over the Ethernet (PoE) in accordance with IEEE 802-3af 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.

You can install the camera where cables are running through the interior of the wall or ceiling as shown in **Figure 2.** Else cabling has to be done through POE.

Step 2: Prepare for Installation
Ensure that the necessary cabling to connect the camera to LAN port and Power outlet are in place. The connecting cables from the monitoring site should be ready at the installation site.

You can insert SD card in camera to store recordings during network failover and to upload image or clip as a result of event trigger.

See page **17** to know how to open the camera and insert the SD card.

Step 3: IP66 Protection Accessory Installation

1. By default your camera contains the LAN connector fitted by IP66 protection accessory.

Power cable

IP66 protection accessory
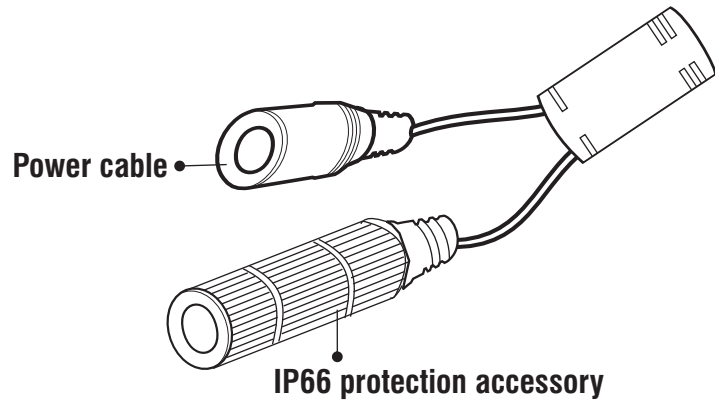
2. The IP66 protection assembly consist of tail end, middle part, "IO" ring and LAN connector as shown below.

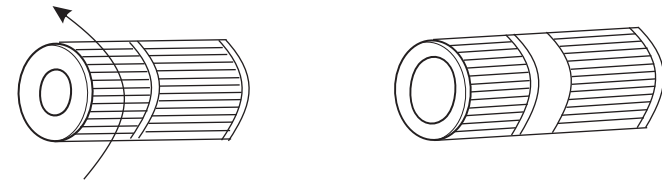**Tail end**   **Middle Part**   **"O"ring**   **LAN Connector**
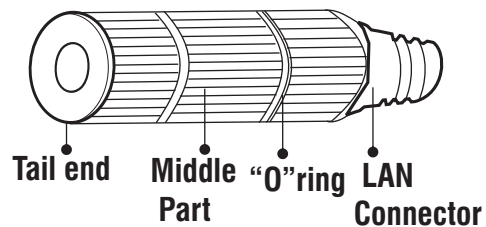
3. Rotate the middle part of IP66 assembly in anticlockwise direction to detach the IP66 accessory from the LAN connector.

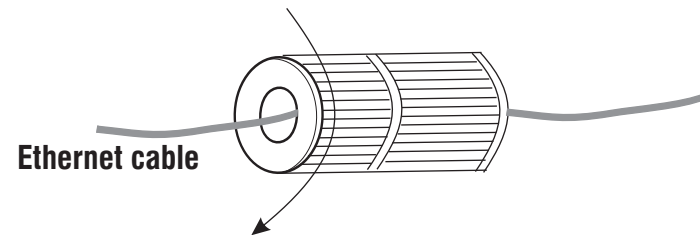**IP66 accessory**   **LAN Connector**
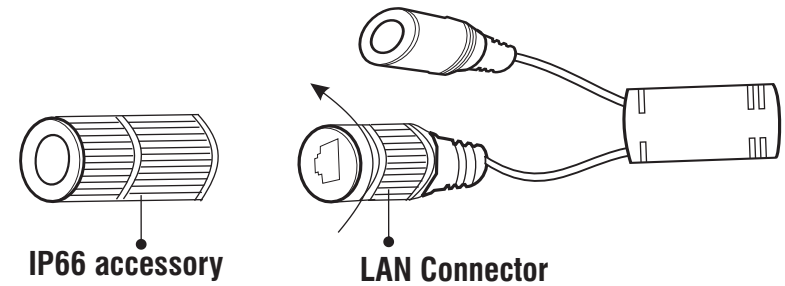
⚠️ *Do not remove the "O" ring from its place.*

4. Loosen the tail end of the IP66 accessory by rotating it in anticlockwise direction.

5. Insert the ethernet cable from behind. Then tighten the "tail end" by rotating in clockwise direction to its maximum and crimp the RJ45 connector.
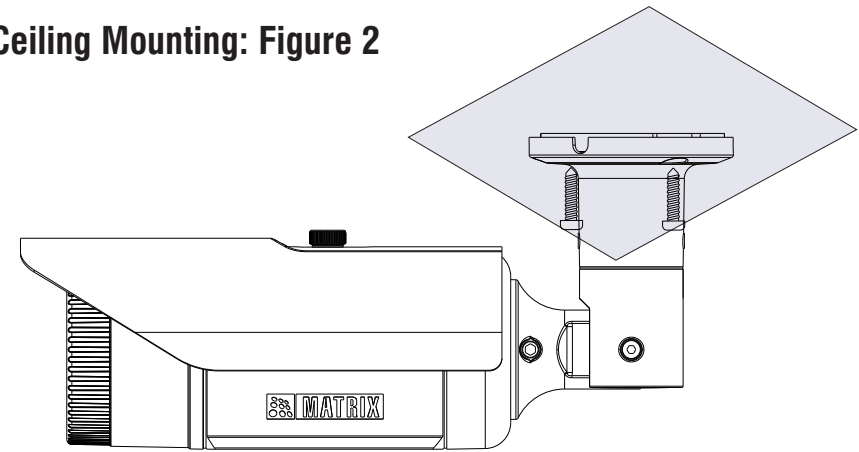

Ethernet cable

6. Insert male RJ45 connector into female connector part. Then tighten the middle part by rotating in clockwise direction.
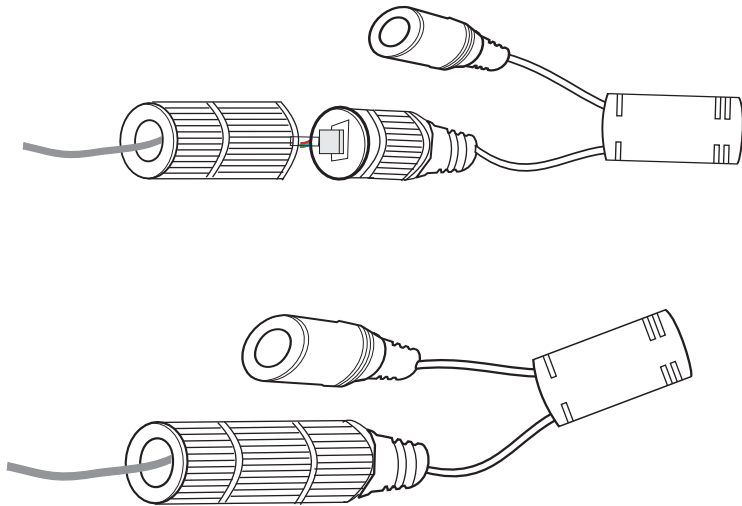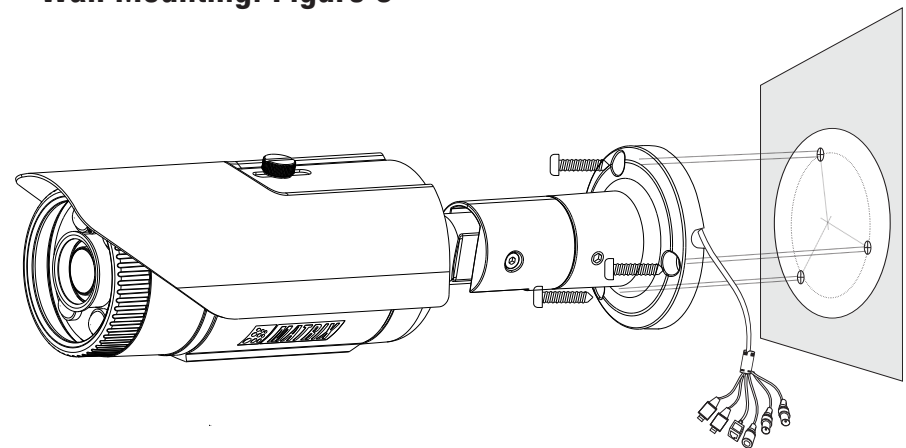

Step 4: Installing Mounting Template

- Stick the Mounting Template on the desired Installation surface.
- Drill three holes through the markings of the Mounting Template on Wall or Ceiling.
- Insert the screw grips in the holes you drilled.

Ceiling Mounting: Figure 2

Wall Mounting: Figure 3

Step 5: Mounting the Camera

- To avoid cable damage, take the Power, Ethernet, Audio IN, Audio OUT, Alarm IN, Alarm OUT cables of the camera through the cable guide on the base plate. see **Figure 3**
- Align the screw holes on the base plate with those you drilled on the installation surface.
- If the cabling is running through the interior of the wall or ceiling behind the installation surface then, drill the hole (20mm approx) on the center of the mounting template through the false ceiling. Before you mount the base plate, pull the cables of the camera through the hole drilled on the installation surface. see **Figure 2**
- Secure the base plate of the camera on the installation surface with the supplied screws.

Step 6: Adjusting the Camera Angle

- Use the Allen Key supplied to you to loosen the socket screws on the pivot joint between the base plate and the camera body.
- Tilt the camera body to achieve the desired angle. You can turn the camera upto 360 degrees.
- Hold it at the desired angle and tighten the socket screw with the Allen key.
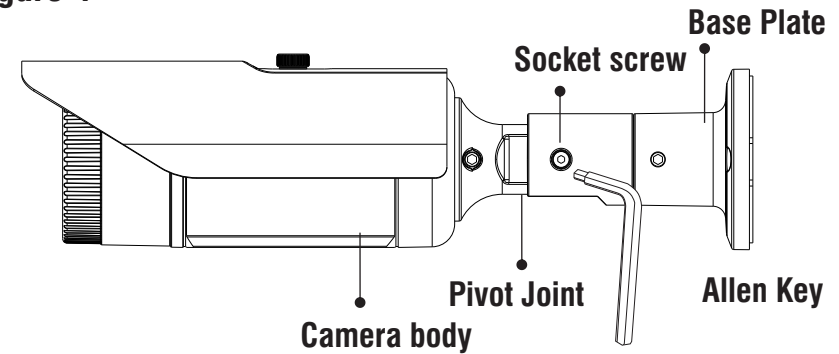
Figure 4

Base Plate
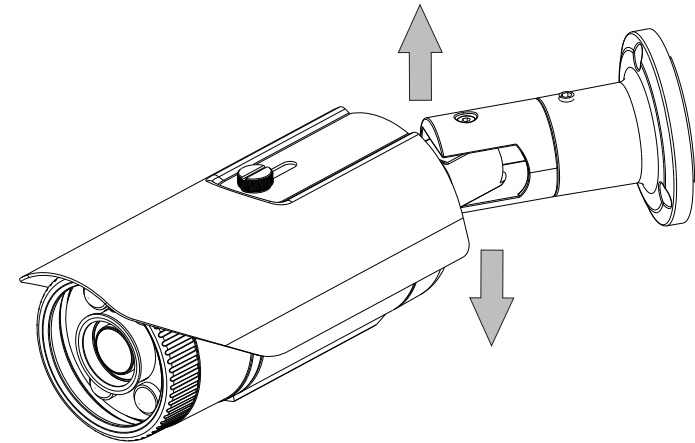Socket screw
Allen Key
Pivot Joint
Camera body

Figure 5

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.

Step 7: Connecting Cables

- Connect the **Ethernet** cable to LAN port and **Power** cable to the 12V DC power supply.

In Premium variants, connect the Audio I/O cables if required.

1. You can connect the **Audio Input** device such as Mike 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.

2. 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.

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

4. 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.
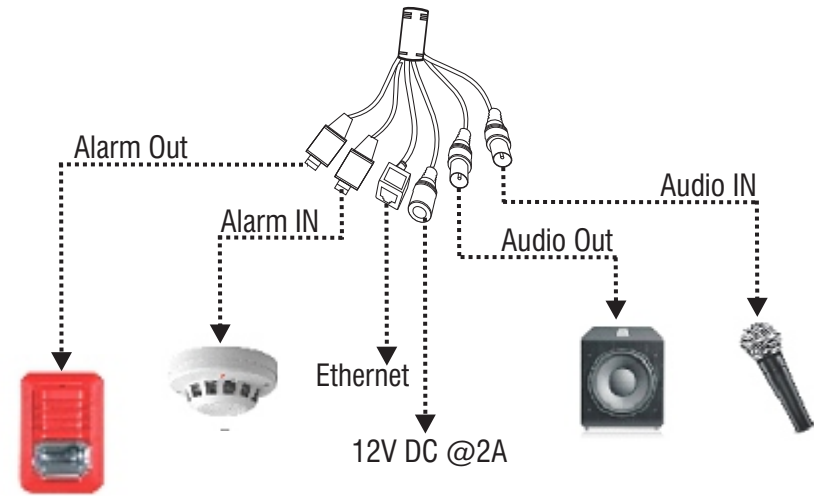
If devices such as Mike and Speaker can be connected to Audio IN and Audio OUT, you may need to connect an external power source if their power requirements are not fulfilled with the camera adapter.

If devices such as Sensor and small Buzzers can be 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 over Ethernet (PoE)
The IP camera is PoE- compliant, allowing transmission of power and data via a single Ethernet cable connected to PoE switch.
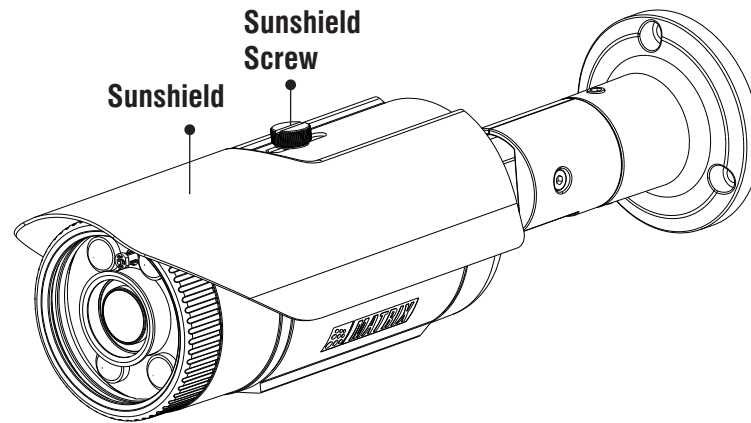
Accessing Reset Pin and SD card slot

If you forget the IP address or login credentials of camera then the camera can be reset to factory default settings using the reset pin.

To access the Reset pin
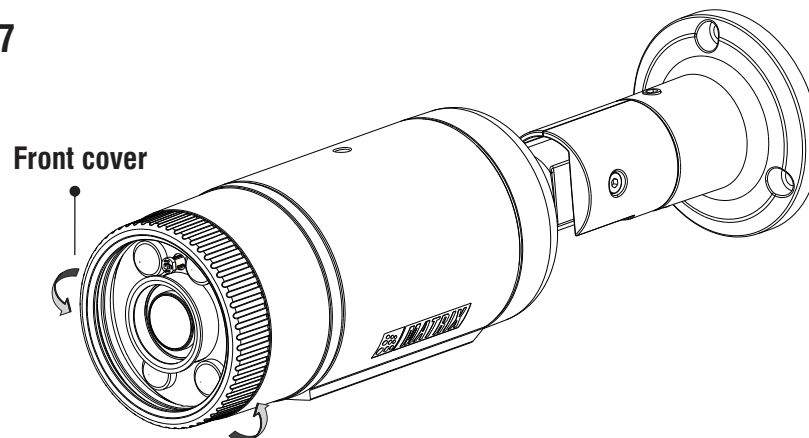**1.** Open the Sunshield by removing the sunshield screw.
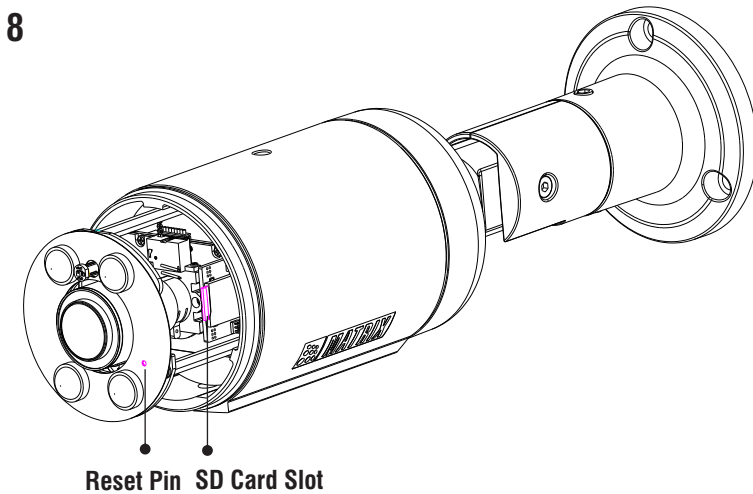
Figure 6

2. Open the front cover by rotating it in the anti-clockwise direction.

Figure 7

3. Press the Reset switch for minimum 5 sec and release the switch to reset the camera to default settings.
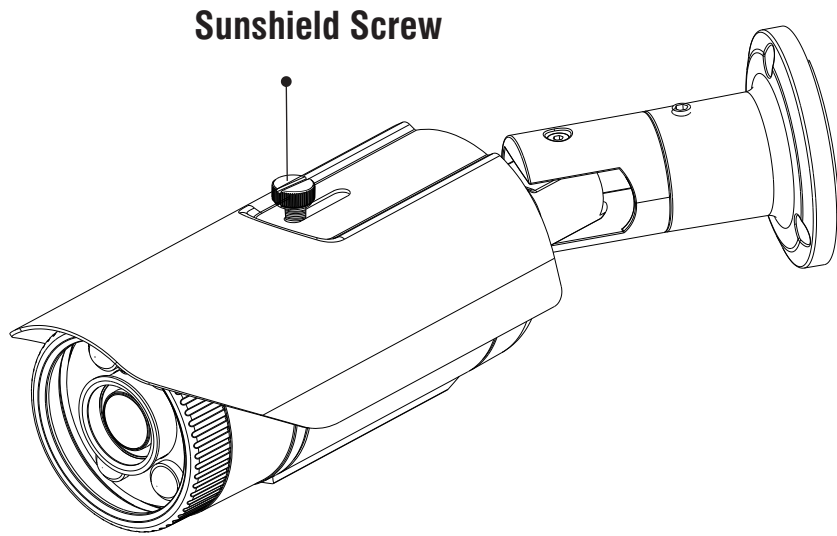
Figure 8

Reset Pin   SD Card Slot

4. You can insert the SD card in the slot to store your camera recordings.

⚠ After Reset or SD card insertion, you may need to set the camera focus and camera angle.

For greater IR vision during the night mode in 2.8mm focal length bullet cameras, it is recommended to put the sunshield at its minimum position from the camera lens as shown in below figure.

Figure 9

Sunshield Screw

Adjusting Focus and Zoom in Varifocal Cameras

Figure 10

Knob1
Focus

Knob2
Zoom

Knob 1: Focus

Towards F
Far Focus ← ⊖ → Towards N
Near Focus

Knob 2: Zoom

Towards W
Zoom Out ← ⊖ → Towards T
Zoom IN
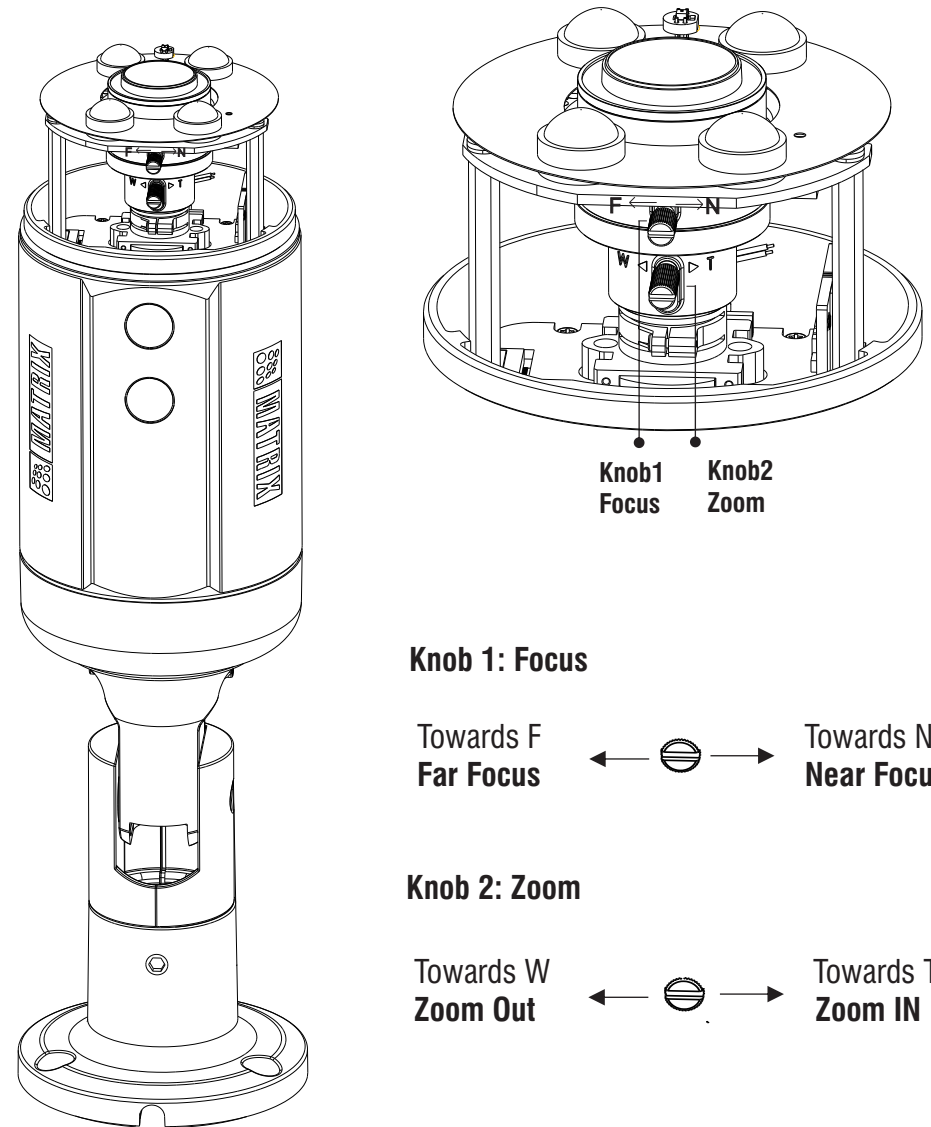
Network Configuration

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.

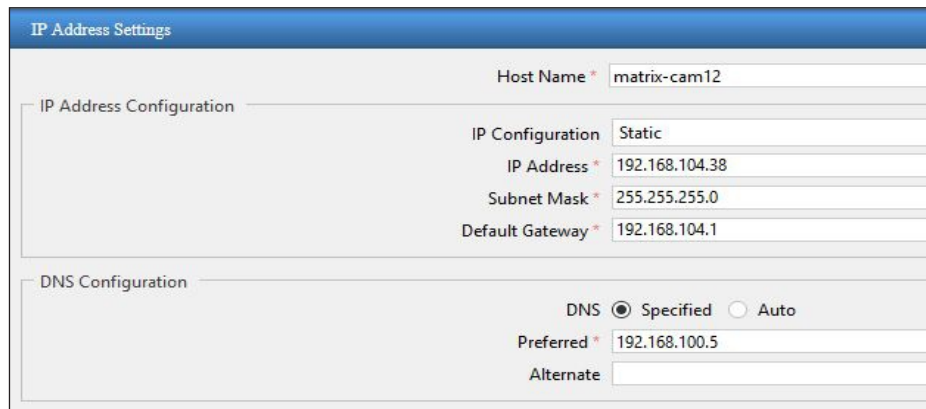**Steps to get the IP address:**

- 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 Basic Settings page of camera.

IP Address Settings	
IP Address Configuration	
Host Name *	matrix-cam12
IP Configuration	Static
IP Address *	192.168.104.38
Subnet Mask *	255.255.255.0
Default Gateway *	192.168.104.1
DNS Configuration	
DNS	⦿ Specified ◯ Auto
Preferred *	192.168.100.5
Alternate	

Accessing via Web Browser

The IP cameras are supported by Microsoft Windows Operating System.

🛑 In Internet Explorer you can access the camera with Matrix ActiveX plugin. In other browsers you need to install Quicktime or VLC plugin.

Steps:

- 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.

MatrixIPCamera - Windows Internet Explorer

http://**192.168.1.126**

File   Edit   View   Favorites   Tools   Help

⭐ Favorites   MatrixIPCamera

- 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.
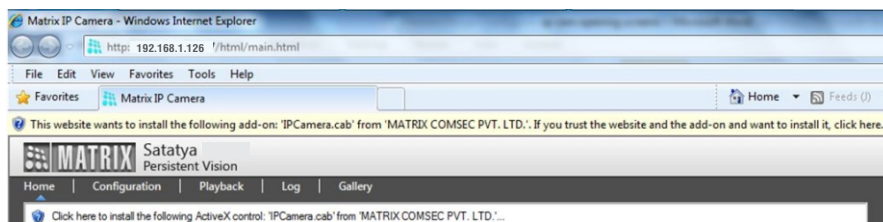
- The browser will ask you to install ActiveX control.
- Click on Run Add-on to install the plugin.
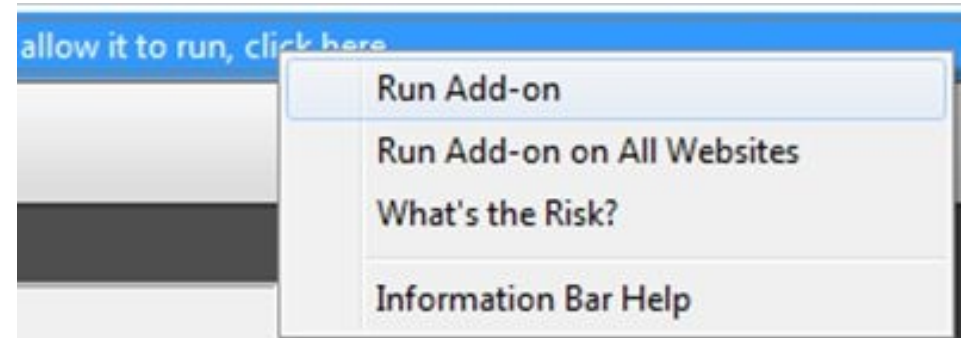
- The ActiveX control will get installed on your PC.
- Now you can **Run** the plugin.

- Install the Camera software by clicking on **Install**.

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

- The camera configuration can be set from Configuration tab.

Technical Specification

Specification	Standard	Premium
Power Supply		
Adapter	12V DC	
PoE	Yes (802.3af, Class 3)	
Power Consumption	12VDC 0.7A; max: 8.5W PoE (36V to 57V)(0.3A to 0.2A); max: 10W	
Connectors		
Ethernet	Yes	
WiFi	No	
Audio IN	No	Yes
Audio Out	No	Yes
Alarm IN	No	Yes
Alarm Out	No	Yes
Casting		
Material	Aluminum	
Colour	Ivory	
Physical		
Dimensions	320mm x 85mm	
Weight	950gm	

* Use BIS, CE, ROHS and FCC approved Adapters.

Technical Specification

Specification	Standard	Premium
Storage		
NAS	Yes	
SD Card	Yes	
Software		
Auto Focus	No	Yes (Only for Motorized Varifocal)
Auto Zoom	No	Yes (Only for Motorized Varifocal)
IVA Events	Motion, Temper Detection, Trip Wire, Intrusion, Detection	Motion, Temper, Trip Wire, Intrusion, Loitering, Audio Exception Detection, Object Counting Missing/Suspicious Object
ONVIF Profile	S	S,G
Environmental		
Operating Temp.	-20 ^{0}C to +60 ^{0}C	
Humidity	5 to 95% RH	

* Missing Object, Suspicious Object, Object Counting and Loitering Detection events will work only in CIBR50MVL12CWP variants of Matrix IP Camera.

Disposal of Product after End-Of-Life
WEEE Directive 2002/96/EC

The product refered 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.

MATRIX

SECURITY SOLUTIONS

MATRIX COMSEC

Head Office

394-GIDC, Makarpura, Vadodara - 390010, India

Ph: (+91)1800-258-7747

Email: Support@MatrixComSec.com

www.matrixvideosurveillance.com