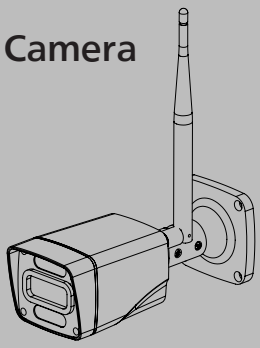
Panasonic

Model No.:
PI-BUA3MWA

Operating Instructions

Bullet IP Camera



Information on hazardous constituents as specified in rule 16(1) in electrical and electronic equipment.

Declaration of Conformity with the requirements of the E-waste (Management) Amendment Rules 2022 with the rule 16(1) limits with respect to lead, mercury, cadmium, hexavalent chromium, polybrominated, biphenyls, polybrominated biphenyls, polybrominated diphenyl ethers.

The content of hazardous substance with the exemption of the applications listed in SCHEDULE II of the E-Waste (management) Amendment Rules 2023.

1. Lead(Pb)- not over 0.1% by weight;
2. Cadmium(Cd)- not over 0.01% by weight;
3. Mercury(Hg)- not over 0.1% by weight;
4. Hexavalent chromium(Cr6+)- not over 0.1% by weight;
5. Polybrominated biphenyls(PBBs) - not over 0.1% by weight;
6. Polybrominated diphenyl ethers(PBDEs)- not over 0.1% by weight;

For the purpose of recycling to facilitate effective utilization of Resources, please return this product to a nearby authorised collection center, registered dismantler or recycler, or Panasonic service center when disposing of this product.

Please see the Panasonic website for further information on collection centers, etc. or call the customer care toll free number.
Website: **https://www.panasonic.com/in/corporate/e-waste-management.html**

English

Customer Care Number (Toll Free): 18004190373
E-mail: helpline@in.panasonic.com

Thank you for purchasing this Panasonic product.
Please read these instructions carefully before operating this product and retain them for future reference.

The images shown in this manual are for illustrative purposes only.

Important Safeguards and Warnings

1. Please read these instructions carefully.
2. Please heed all warnings.
3. Please follow all instructions.
4. Do not use this apparatus near water.
5. Please clean only with dry cloth.
6. Do not block any ventilation openings, install in accordance with the manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. ⚠ Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. ⚠ Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

10. Only use attachments/ accessories specified by the manufacturer.
11. Use with cart, stand, tripod, bracket, or table only as specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. ⚠ Unplug this apparatus during lighting storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel.
14. Do use a reliable and secure network connection to avoid interruptions in the camera's feed.
15. Do ensure good Wi-Fi connectivity/ signal (2.4Ghz), in case camera is used in Wi-Fi mode.
16. Don't tamper with the camera's internal components or modify its firmware without proper knowledge or authorization.

Disclaimer

- We strongly recommend you to set a difficult password immediately after the first log in to ensure account security and don't share it with unauthorized personnel.

- Password Characters: Password must contain at least 8 to 16 characters comprising all three elements: alphabet, special character & digit.

- The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your screen / monitor.

- We have put in our best efforts to verify the correctness and integrity of the contents in this manual, but no statement, information / recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual.

- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.

- Use of this product, the manual and the subsequent result shall be entirely the user's own responsibility. In no event shall Panasonic be liable for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation, or product malfunction or information leakage caused by

cyber-attack, hacking or virus in connection with the use of his product.

- The contents of this manual are subject to change without prior notice. Regular updates can be added to the new version of this manual.

- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides with our company.

Contents

Part I Product Introduction 1

Product Function 1

Recommended PC Specifications 2

Accessories 3

Appearance 4

Installation Precautions 5

Installation Guide 6

Part II Local Network Access 7

1. Powering and Networking 7

2. Active X Installation Procedure 8

Install Active-x 8

3. Camera Configuration & Setup 10

4. About the Live Page & Icons 13

5. About Playback 14

6. About Config 15

Local Config 15

Encode 16

Network 25

Record 29

Alarm 30

System Configuration 36

Security 39

System Tool 40
System Information 43
Do's & Don'ts 45
Troubleshooting Points 46
TECHNICAL SPECIFICATIONS 48

Part I Product Introduction

Product Function

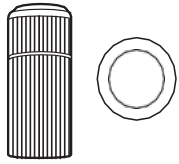
1. For Indoor & outdoor use.
2. PoE enabled.
3. Encode codec (H.264, H.265 & H.265+)
4. Full HD Video Quality (2304x1296) 3MP.
5. Built-in microphone.
6. Built-in Wi-Fi. (2.4Ghz)
7. ONVIF Compliance.
8. Dual-Streaming.
9. Supports IR.
10. Supports Privacy masking. (4 Zone)
11. This IP camera can display videos in different resolutions and qualities.
12. When an event occurs, the related text notification is sent to the email address registered by a user.
13. Web Browser-based Monitoring using the Internet web browser to display the image in a local network environment.
14. User can access this IP camera on mobile application & desktop application (VMS).
15. Tampering Detection - Detects tempering attempts on video monitoring.
16. Motion Detection - Detects motion from the camera's video input.

17. Video Blind Detection – Detect if camera lens is covered/blocked more than 60%.
18. Abnormality Detection – Detects abnormality alarms like IP Address Conflict, Network disconnect etc.
19. Sound Detection – Detects abnormal sound from the camera video input.
20. Human Detection – Detects human movement from the camera video input.
21. Analytic – Detect area intrusion & line crossing event in the defined region.

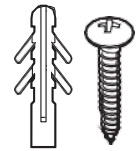
Recommended PC Specifications

1. CPU: Intel Core i5 2.8 GHz or higher
2. RAM: 4GB or higher
3. Supported OS: Windows 10 & above.
4. Supported Browser: Microsoft Internet Explorer. (Fully supported for all functionalities)
5. Mozilla Firefox & Google Chrome supported with limited functionality.
6. Apple Safari supported with limited functionality.

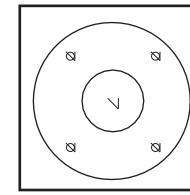
Accessories



RJ45 Cap with sealing Ring

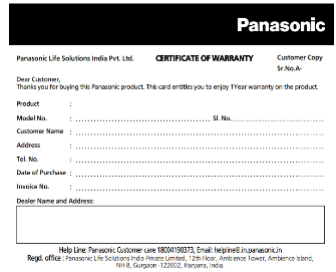


Screw & Wall Plug (x4)



Mounting Sticker

Antenna


Panasonic

Panasonic Life Solutions India Pvt. Ltd. CERTIFICATE OF WARRANTY Customer Copy

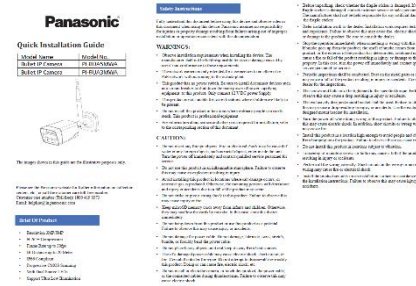
Sr.No.A-

Dear Customer,
Thanks for buying this Panasonic product. This card entitles you to enjoy 1Year warranty on the product.

Product :
Model No. : Sl. No.
Customer Name :
Address :
Tel. No. :
Date of Purchase :
Invoice No. :
Dealer Name and Address:

Help Line: Panasonic Customer care 18004198373, Email: helpline@in.panasonic.in
Regd. office : Panasonic Life Solutions India Private Limited, 12th Floor, Ambience Tower, Ambience Island, NH-8, Gurgaon- 122002, Haryana, India.

Warranty Card

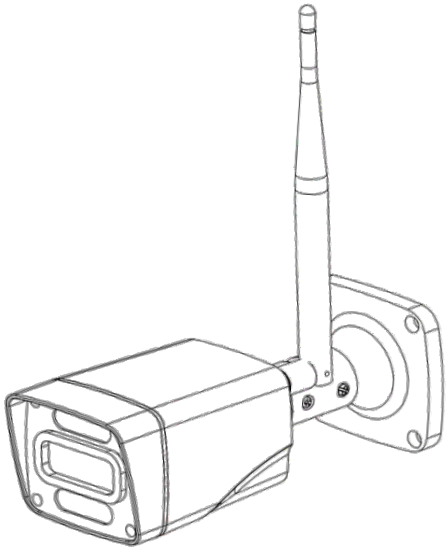

Panasonic

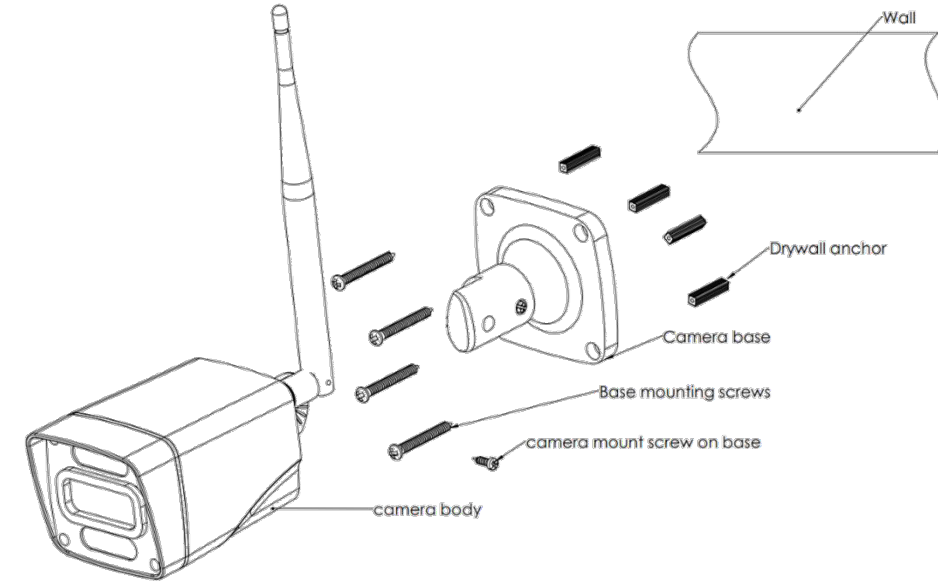
Quick Installation Guide

Model Name	Model No.
Bullet IP Camera	PI-BIA2MWA
Bullet IP Camera	PI-BIA3MWA

Quick Installation Guide

Appearance




Wall
Drywall anchor
Camera base
Base mounting screws
camera mount screw on base
camera body

Installation Precautions

Note: This camera is for indoor and outdoor usage.

1. This device should be mounted and maintained only by an experienced professional. If in doubt, consult the dealer.
2. Before mounting, determine the suitable location. The device must be fixed to a wooden or masonry/concrete wall or ceiling using fasteners that are appropriate for the mounting surface. Do not install on drywalls, wallboards, or thin plywood. The mounting surface must be capable of supporting the weight of the device.
3. Do not drill into any pipes or power lines beneath the surface during mounting holes preparation. Use voltage/metal detector before drilling any holes to eliminate any such potential risks.
4. Do not hang anything on the device.
5. Mount the device to monitor the most vulnerable areas of your home, such as front elevations, side access and rear entrance points.
6. It is suggested to mount the device 2.5 m to 4 m above the ground for the most visibility and the maximum detection range.
7. Do not place the device near high voltage wires or other sources of electrical interference. Electrical interference may degrade the quality of the signal.

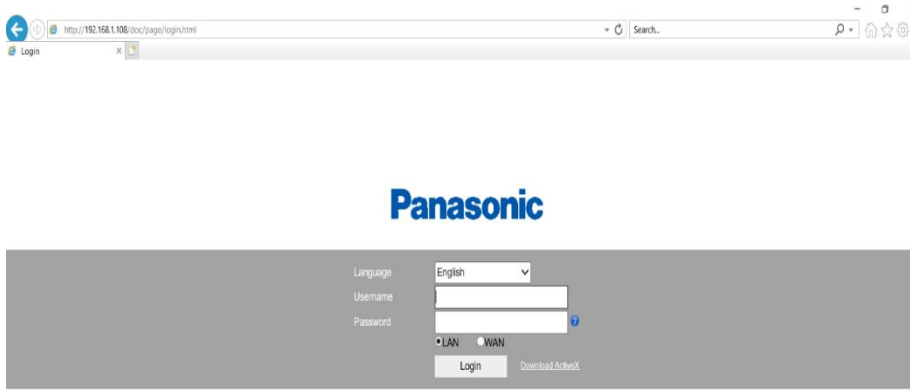
Installation Guide

1. Place the mounting base of camera onto the selected location.
2. Using the template provided, Drill the 4 holes with a 6 mm drill bit. Insert the wall plugs for concrete walls.
3. Secure the wall bracket to the wall using 4 mounting screws. Tuck the cable into the slot on the side of the wall bracket.
4. Adjust camera angle as per the requirement.

Part II Local Network Access

1. Powering and Networking

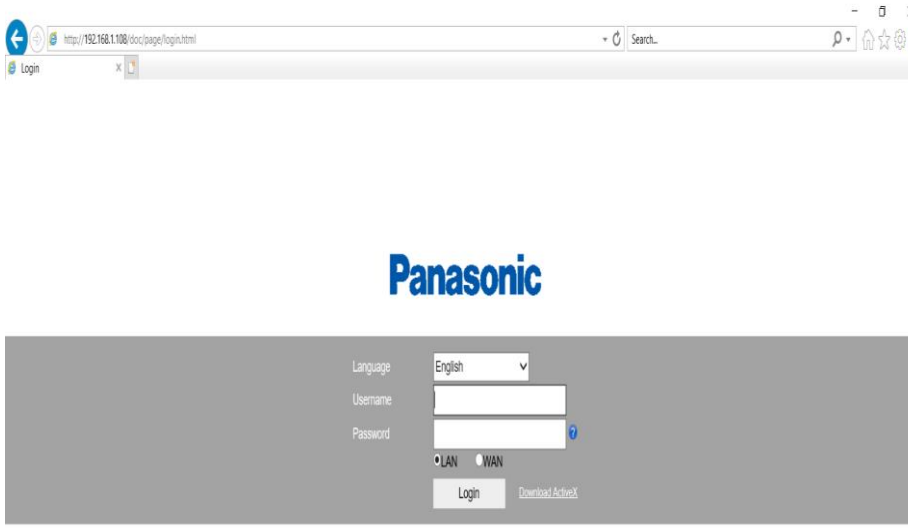
1. Use PoE i.e., compliant with IEEE802.3af protocol.
2. Connect the PoE switch and cameras PoE connector.
3. Switch on the PoE switch.
4. Default IP address of the camera is 192.168.1.108
5. Connect the PC on the PoE switch & configure PC IP address in the same series as IP camera.
6. Launch an internet browser on the local PC.
7. Enter the IP address of the camera in the address bar for the browser.
8. Enter username and password (Default username: admin & password: admin123) to login to the IP camera.



2. Active X Installation Procedure

Install Active-x

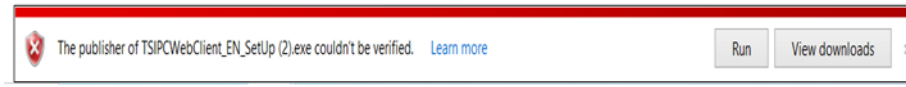
1. Input username and password to log in (When first access for live view it is recommended to download the Active-X.



2. Choose a language then enter the username and password to log in, then click on “Download Active-X” to download the Active-X setup file.

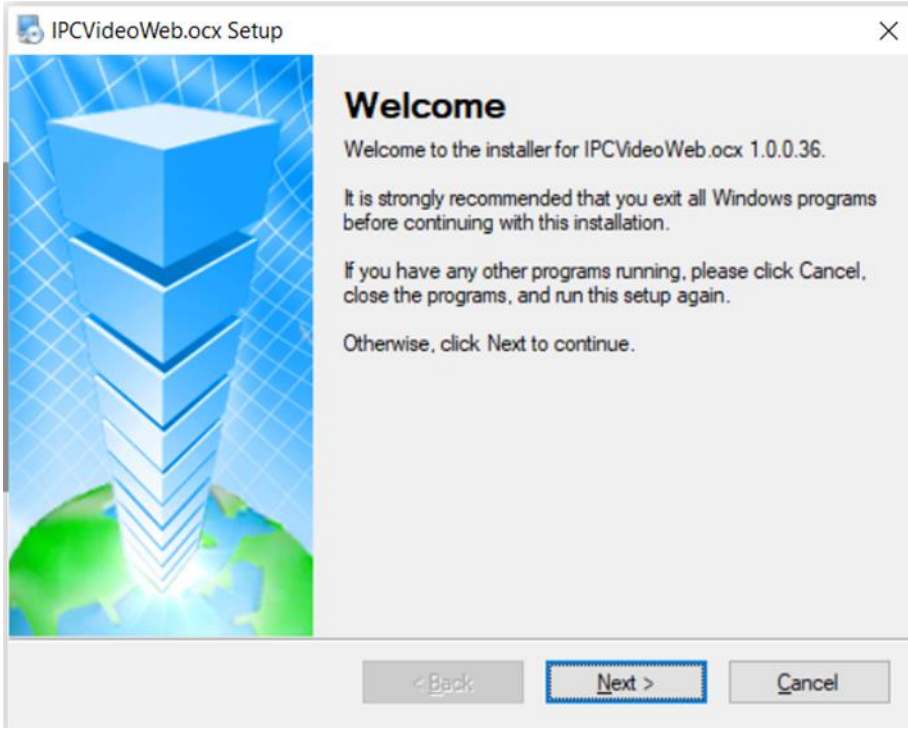
3. Then click on the save button as shown below.

4. Then click on the Run button.



5. Click on Next to finish the installation.

3. Camera Configuration & Setup

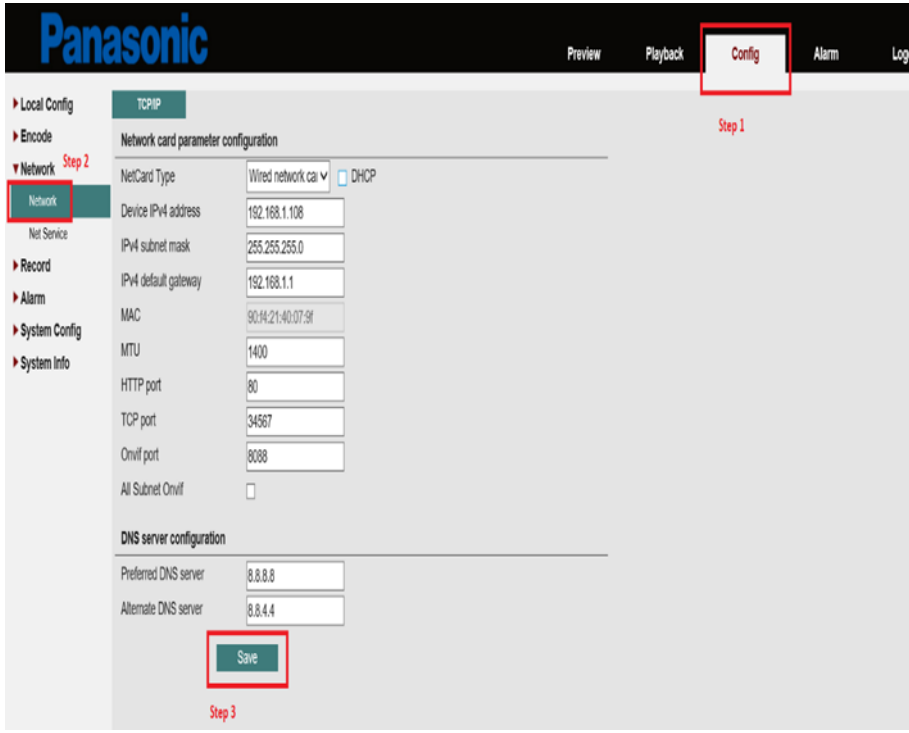


- **IP Address configuration.**

  - Static – Default IP address of the IP camera is 192.168.1.108, we recommend changing the default IP address during 1st login.

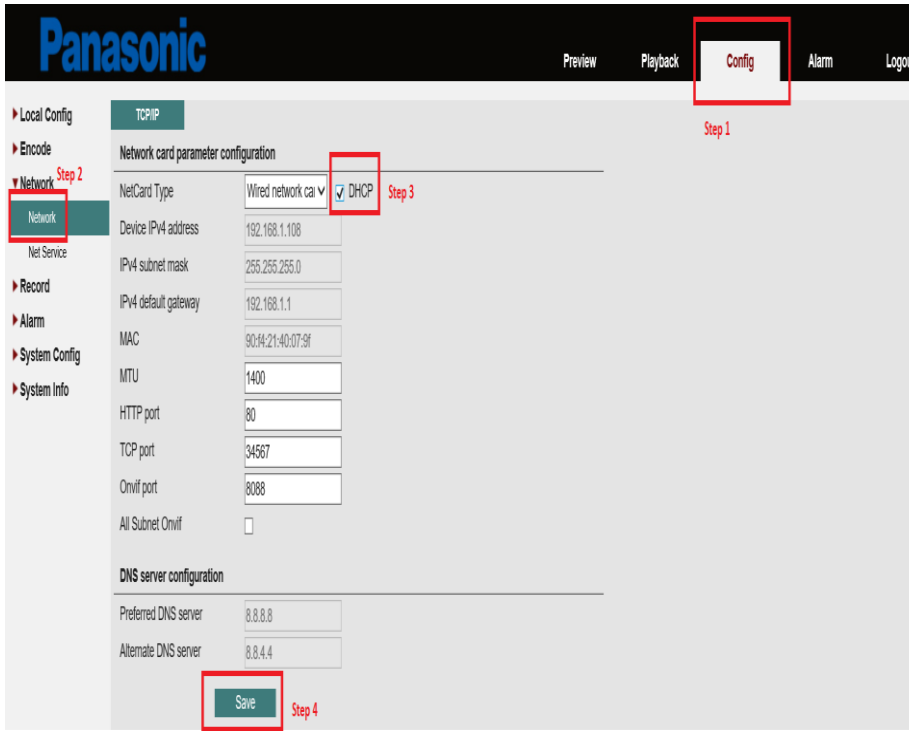
  - Use the internet browser to access the camera, login screen will appear, login to the camera using username & password.

Click on [Config] > [Network] as shown below.

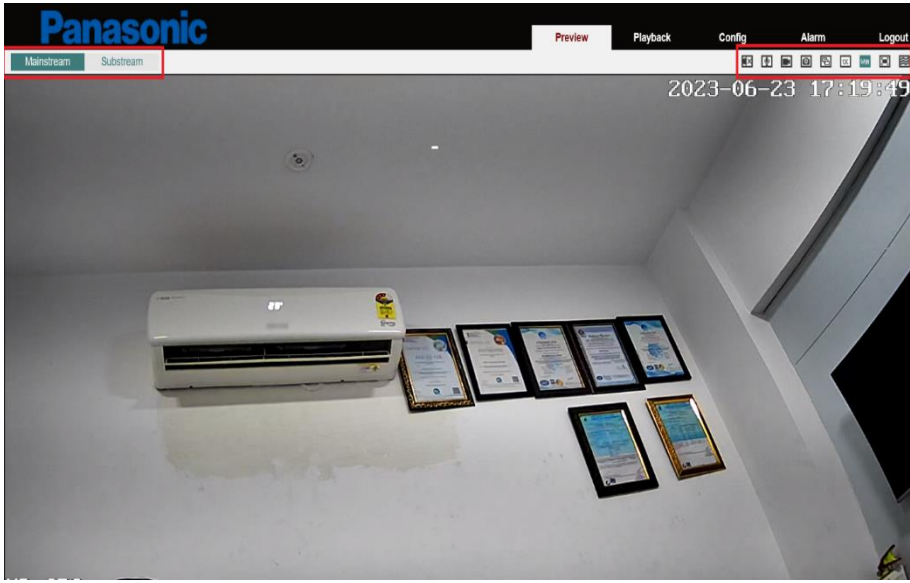


- Change the IP address as per your router/NVR configuration then click on save button.

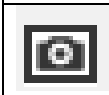
- **DHCP configuration**
    - Click on [Config] > [Network] as shown below.



4. About the Live Page & Icons



Preview interface	Mainstream Substream	Select Mainstream to view high resolution video or Sub stream to low resolution video.
		Turn on to hear the sound.
		Not applicable for this model.

		Record: Click to start/stop manual recordings and save them in C:\Record
		Click to capture the preview screen and save it in C:\Picture
		Click to capture three pictures in single shot and save them in C:\Picture
		Original resolution display
		Suitable for display resolution
		Full-screen display
		Fluency

5. About Playback

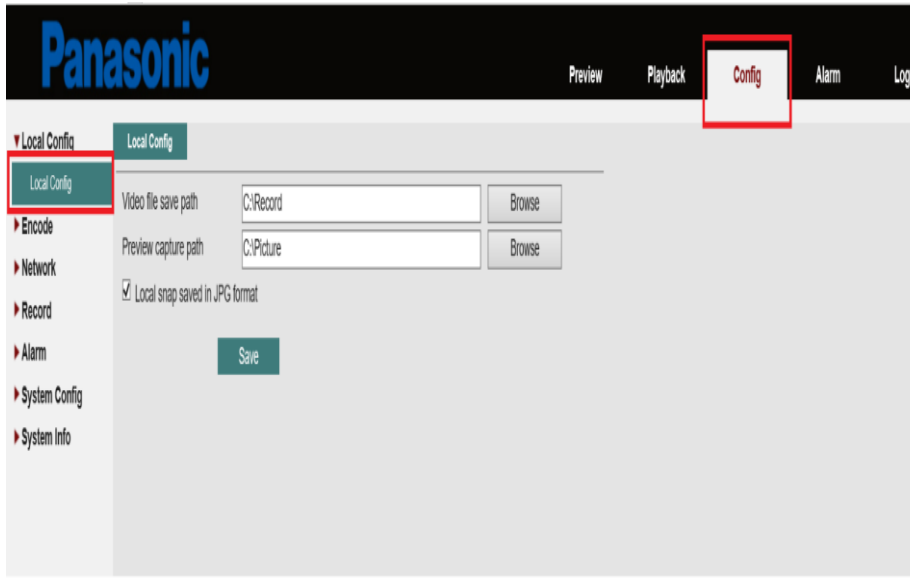
This option will not be in use for the current model.

6. About Config

Local Config

Provide option to define path for local storage related to manual recording. Snap/Video.

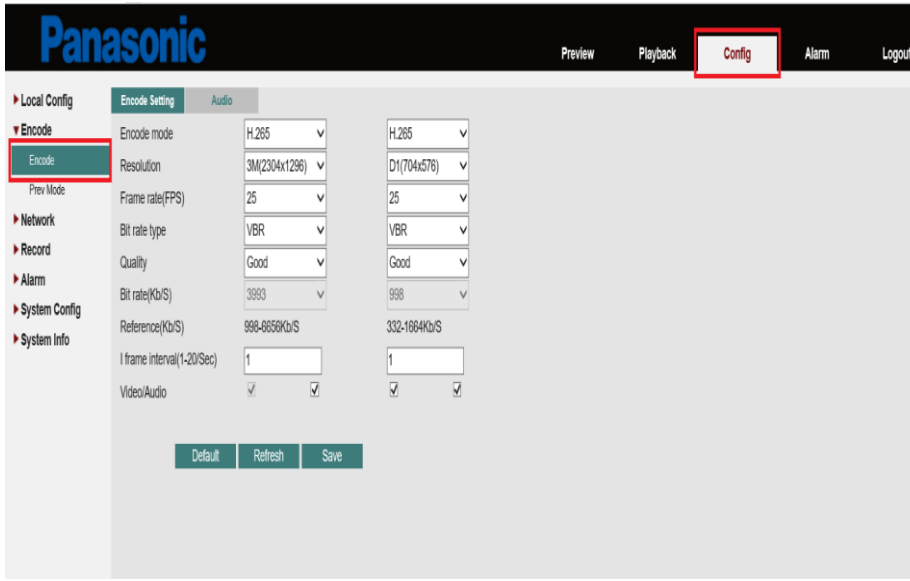
Click on [Config] > [Local Config] as shown below



Encode

Encode settings are video image quality settings which includes compression, resolution, FPS, bitrate, I-Frame interval etc. Please set these correctly based on the network can save network bandwidth, HDD space, fix network lags etc.

Click on [Config] > [Encode] as shown below.



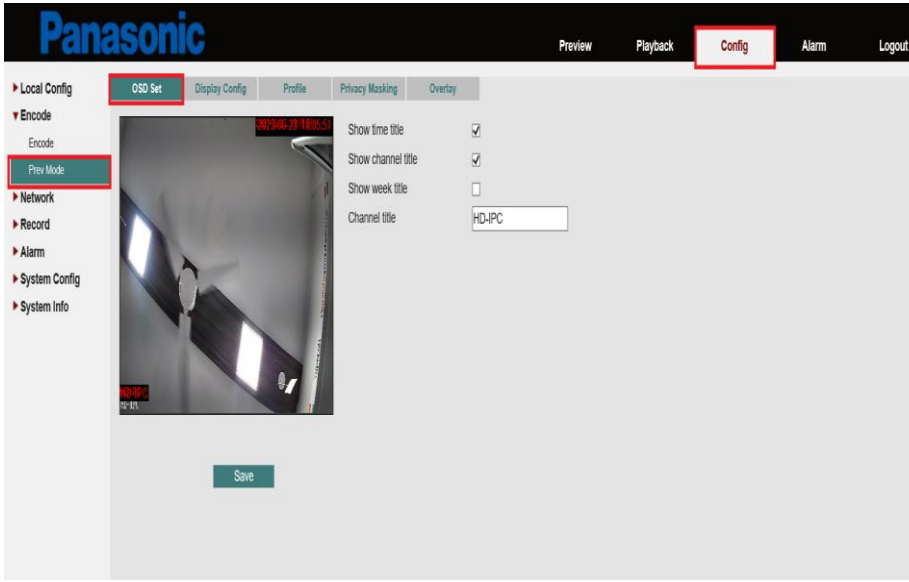
Audio provides an option to set audio encode settings, mic input, mic output (not applicable for this model) sensitivity.

Click on [Config] > [Encode] > [Audio] as shown below.

Prev Mode

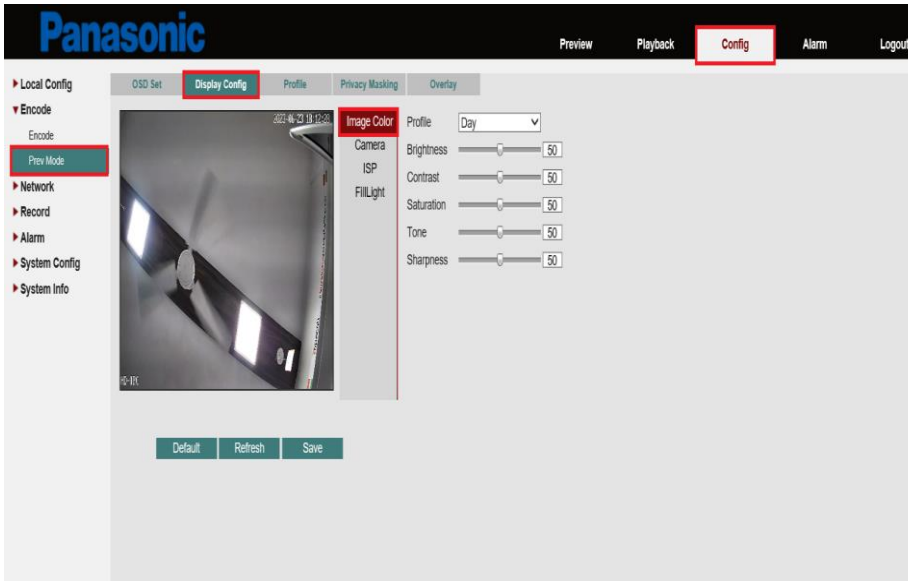
1. OSD Setting provides an option to configure options related to on screen display during the live view, for example Time title, Channel title, week title etc.

Click on [Config] > [Prev Mode] > [OSD set] as shown below.



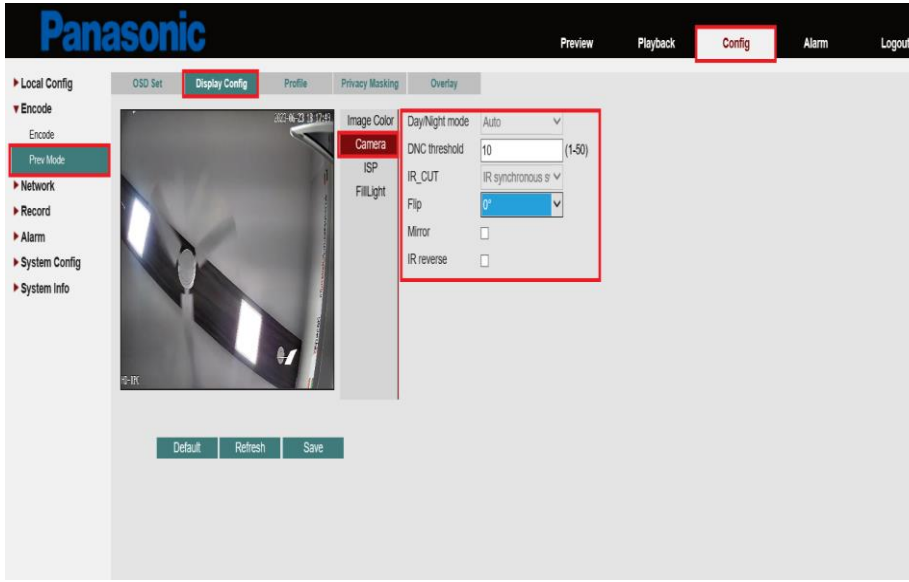
2. Image color provides an option to configure parameters related to image quality, for example Brightness, Contrast, Saturation, Tone & Sharpness for day & night profile.

   Click on [Config] > [Prev Mode] > [Display Config] > [Image Color] as shown below.



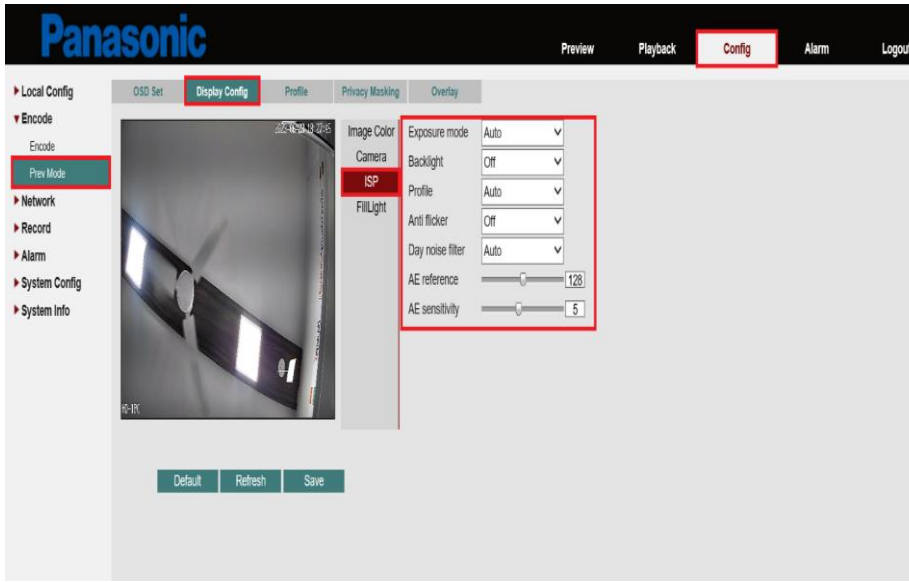
3. Camera provides an option to configure parameter related to Day/Night mode, day night control, IR cut, image flip, mirror image & IR reverse.

   Click on [Config] > [Prev Mode] > [Display Config] >[Camera] as shown below.



4. ISP provides an option to configure parameters related to Exposure mode, BLC, HLC, Profile, Anti flicker, Day/Night Noise filter, AE reference & AE sensitivity.

   Click on [Config] > [Prev Mode] > [Display Config] >[ISP] as shown below.

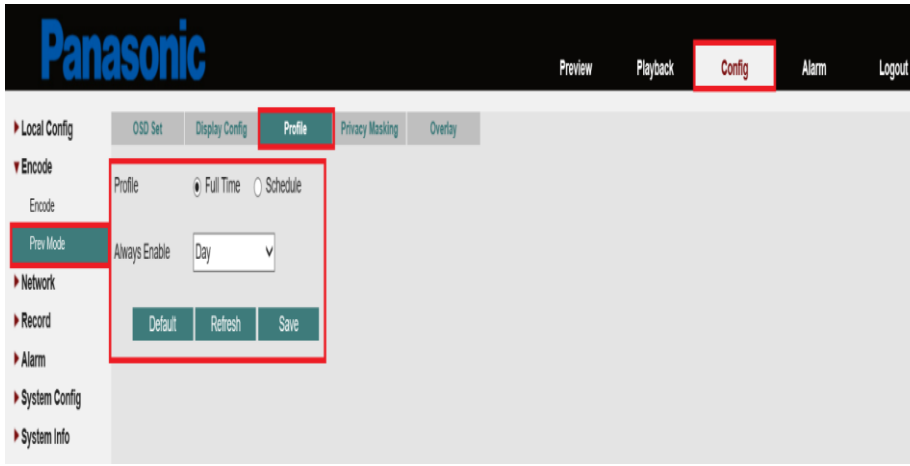


5. Fill Light option not applicable for this camera model.

Profile

Day & Night profile can be created and scheduled for different picture quality display during the live view.

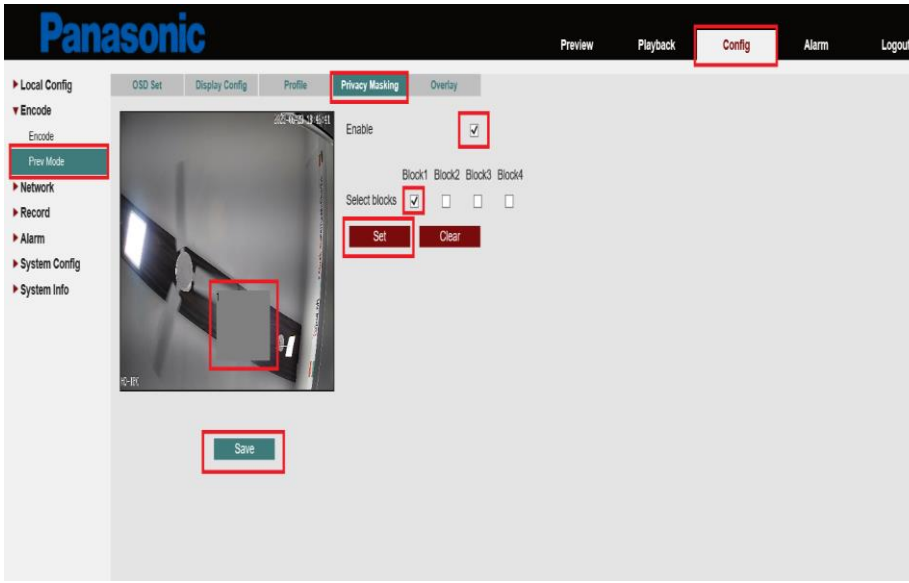
Click on [Config] > [Prev Mode] > [Profile] as shown below.



Privacy Masking

Privacy masking is used to mask a particular area or object to be viewed during the live camera view, user can create up-to 4 different zones to block.

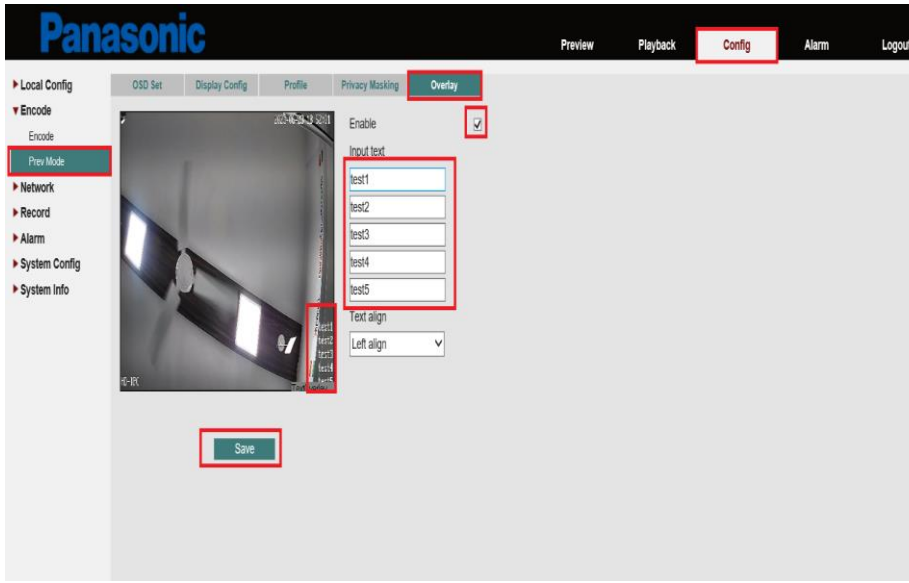
Click on [Config] > [Prev Mode] > [Privacy Masking] as shown below.



Overlay

This utility provides an option to configure text to be displayed over the live view.

Click on [Config] > [Prev Mode] > [Overlay] as shown below.

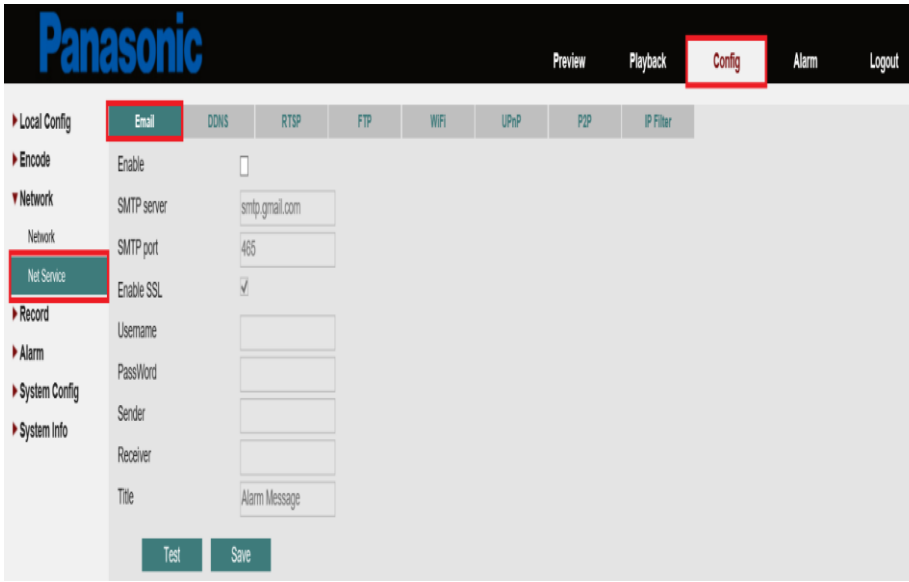


Network

Net Services

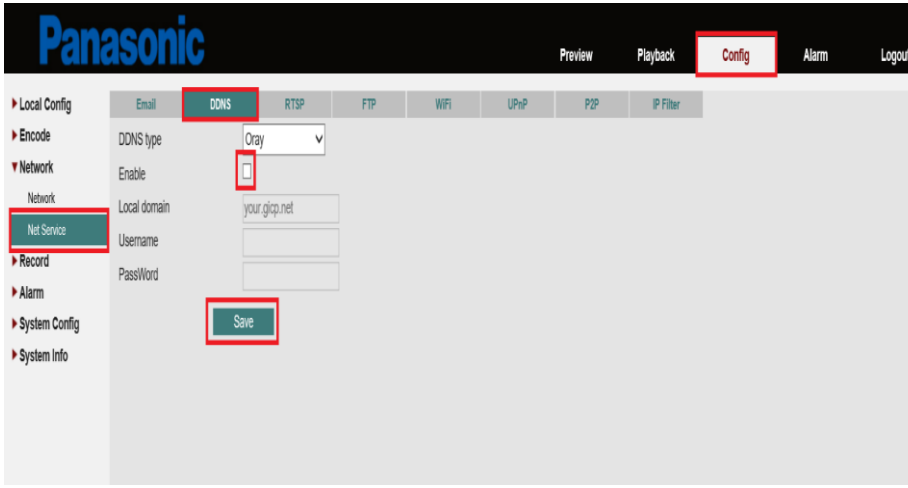
1. Email provides an option to configure SMTP server for the email ID to send alarm notification by the camera in case of any configured event.

   Click on [Config] > [Net Service] > [Email] as shown below.



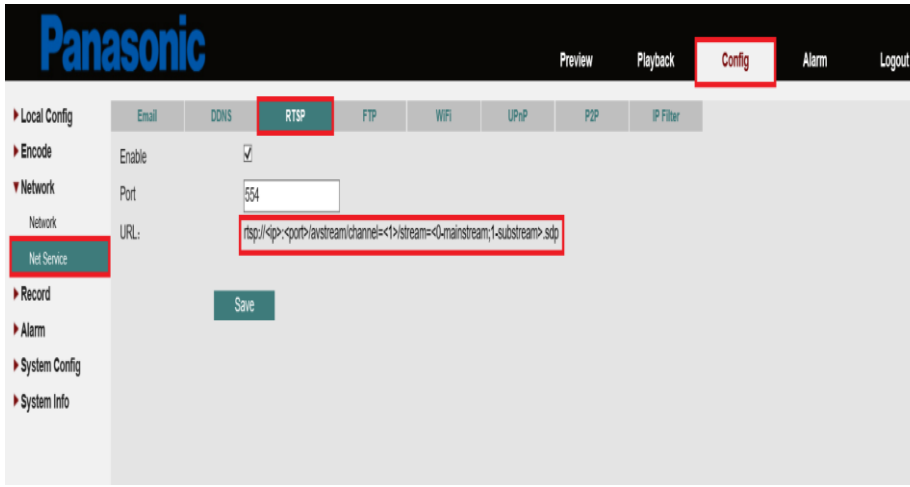
2. DDNS provides an option to register with an DDNS server to obtain a domain name for your IP Camera and then access your IP Camera by visiting the domain name instead of an IP address (http://DDNS server address/IP Camera domain name) using a web browser.

Click on [Config] > [Net Service] > [DDNS] as shown below.



3. RTSP provides an option to access IP Camera video stream over any 3rd party device/media player.

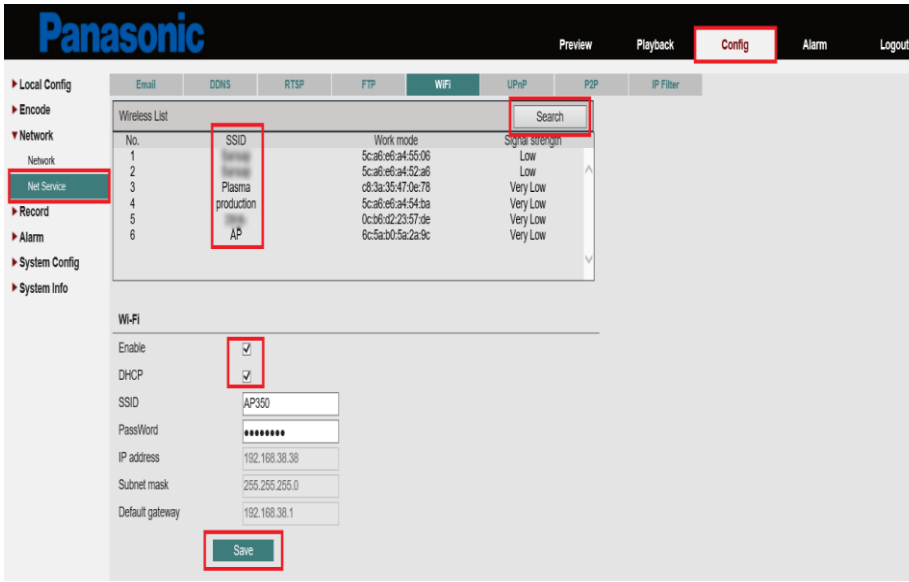
   Click on [Config] > [Net Service] > [RTSP] as shown below.



4. FTP is not applicable for this model.

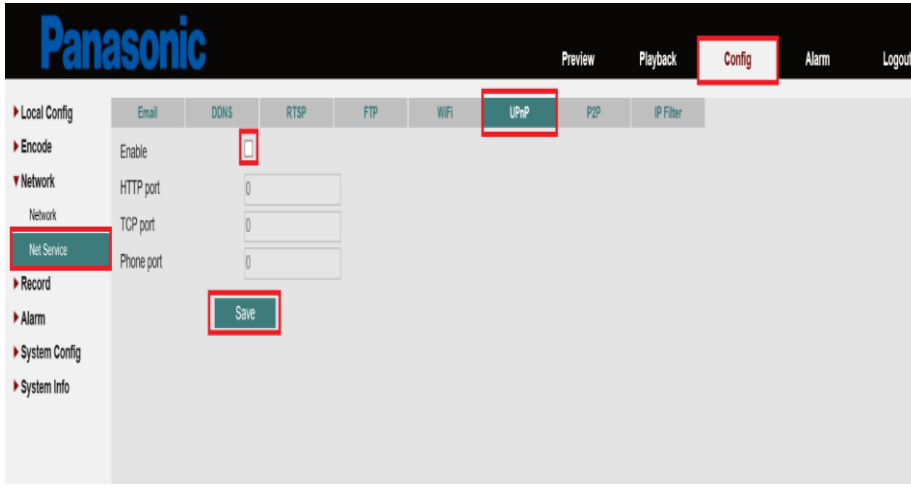
5. Wi-Fi provides an option to configure the camera to connect with Wi-Fi network.

   Click on [Config] > [Net Service] > [Wi-Fi] as shown below.

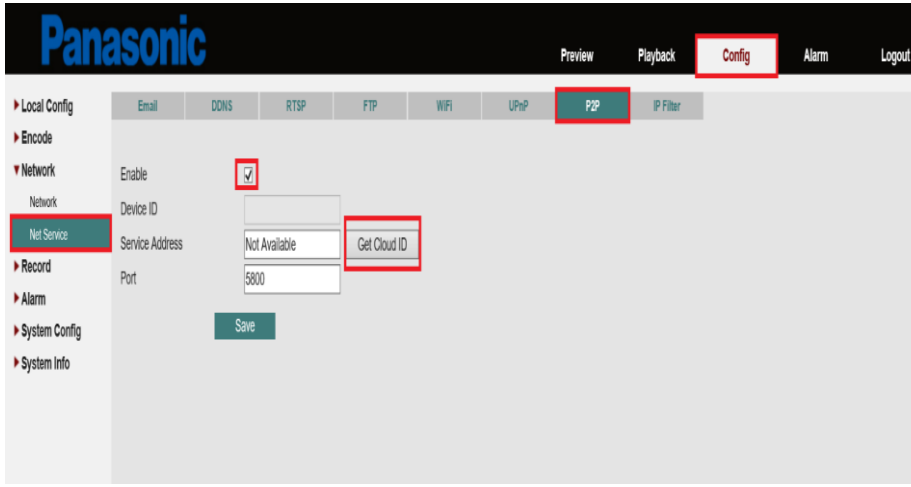


6. To use UPnP in your IP Camera, UPnP must be enabled in the connected router. With UPnP enabled for Network Address Translation (NAT), the ports on the IP Camera can be mapped automatically to the router, and computers can access IP Camera from WAN.

Click on [Config] > [Net Service] > [UPnP] as shown below.

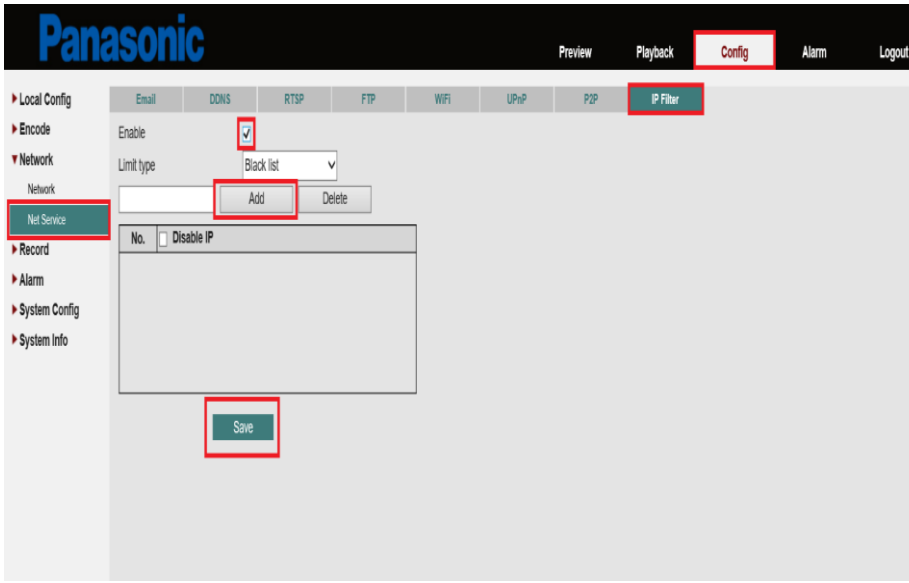


7. P2P provides an option to enable/disable cloud connectivity for remote access using mobile applications or desktop. User needs to click on Get Cloud ID, after the click camera will pop up message to reboot. After reboot cloud ID can be viewed at this option and camera can be configured in the app for remote monitoring.
   Click on [Config] > [Net Service] > [P2P] as shown below.



8. IP Filter provides an option to secure connectivity and provide access to authorize users using blacklist and whitelist IP address table.

Click on [Config] > [Net Service] > [IP Filter] as shown below.



Record

Record option not applicable for this model.

Alarm

Provides an option to trigger notification/recording based on motion, human, video loss, video blind, abnormality & intelligent analytics.

1. Motion

Once enabled a motion detection alarm occurs when an object inside the detection area moves, based on the settings notification can be sent on email.

Click on [Config] > [Alarm] > [Motion] as shown below.

Note: SMTP settings should also be configured.

2. Video Blind

Once enabled a video blind alarm occurs when the camera view is blocked more than 60% by an object, based on the settings notification can be sent on email.

Click on [Config] > [Alarm] > [Video Blind] as shown below.

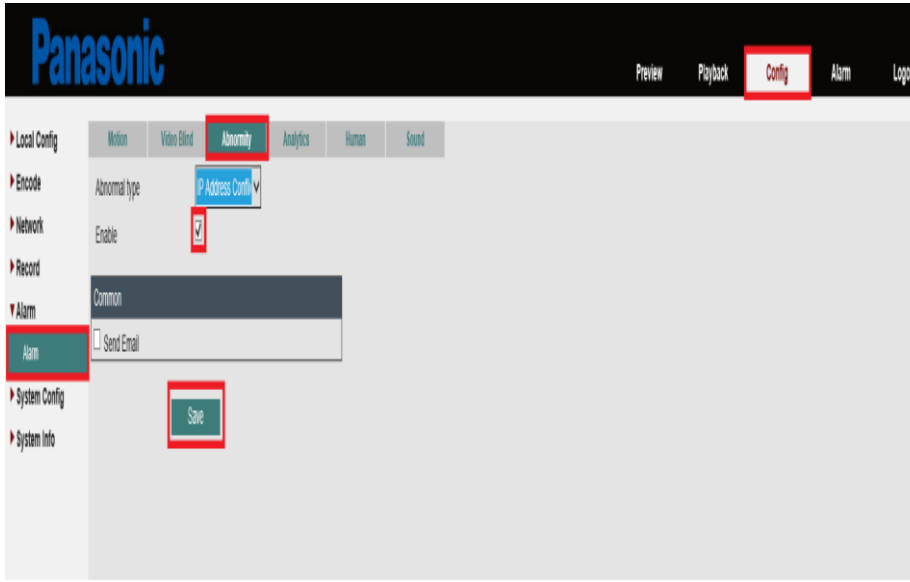
Note: SMTP settings should also be configured.

3. Abnormality

Once enabled abnormality alarm occurs in the event of Network Loss, IP Conflict detection. based on the settings notification can be sent on email.

Click on [Config] > [Alarm] > [Abnormality] as shown below.

Note: SMTP settings should also be configured.

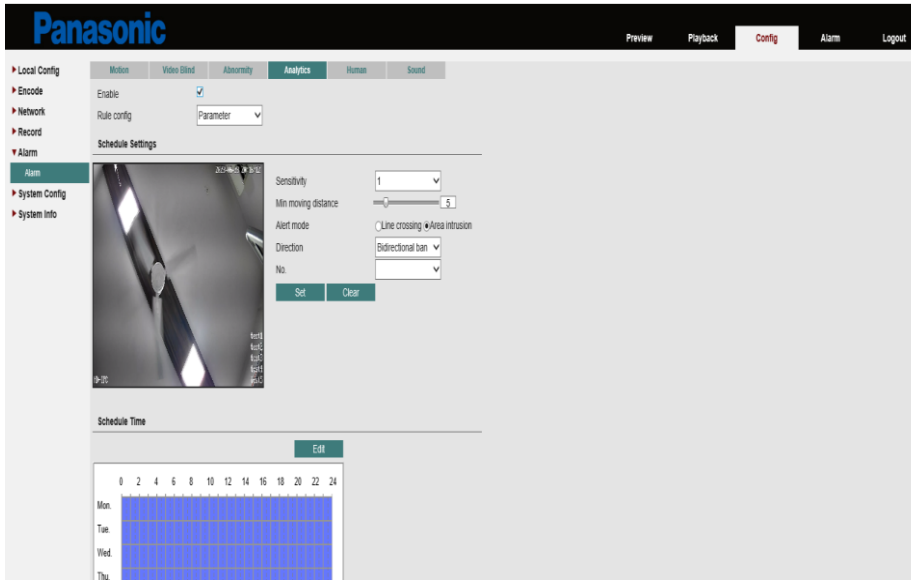


4. Analytics

Once enabled an alarm occurs when the camera detects Area Intrusion, Line Crossing event in the defined region, based on the settings notification can be sent on email.

Click on [Config] > [Alarm] > [Analytics] as shown below.

Note: SMTP settings should also be configured.

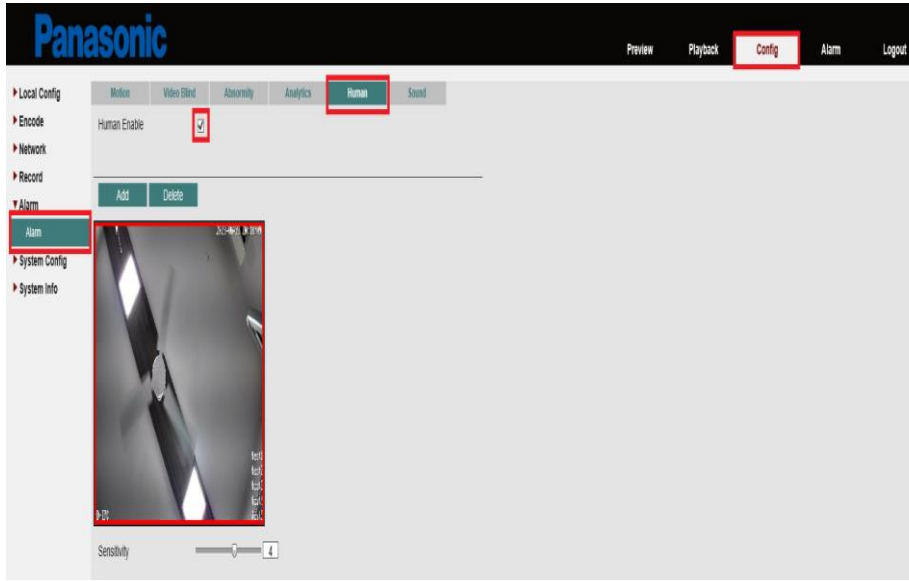


5. Human Detection

Once enabled an alarm occurs when the camera detects any human movement in the defined region, based on the settings notification can be sent on email.

Click on [Config] > [Alarm] > [Human] as shown below.

Note: SMTP settings should also be configured.

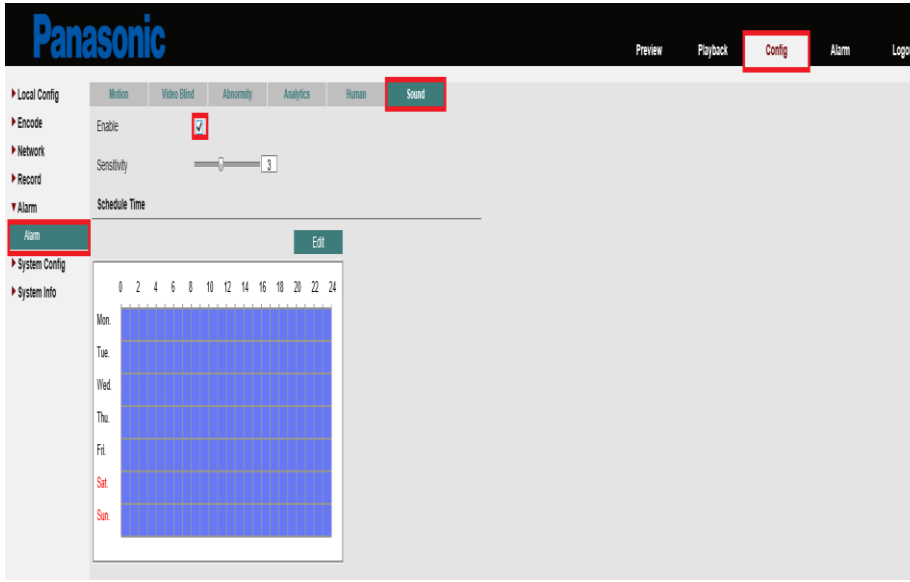


6. Sound

Once enabled, it detects abnormal sound from the camera, based on the settings notification can be sent on email.

Click on [Config] > [Alarm] > [Sound] as shown below.

Note: SMTP settings should also be configured.

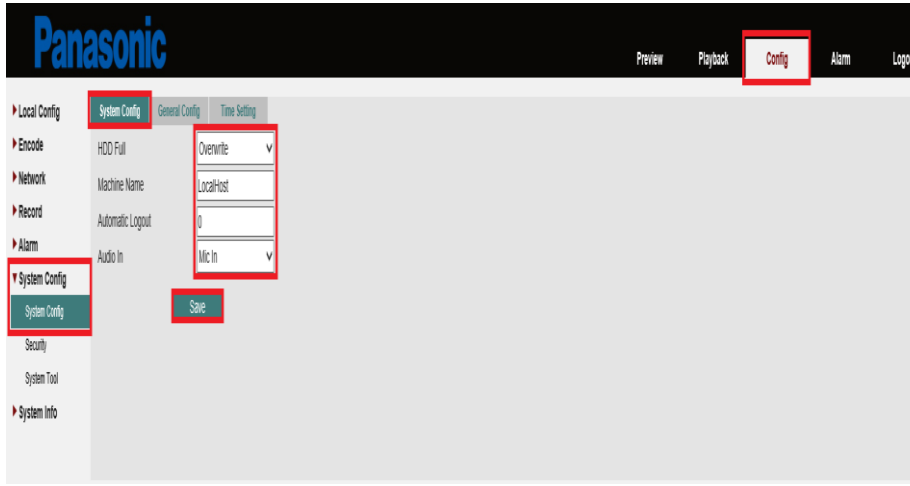


System Configuration

1. System Configuration provides an option to configure Machine/Camera name and auto logout time setting.

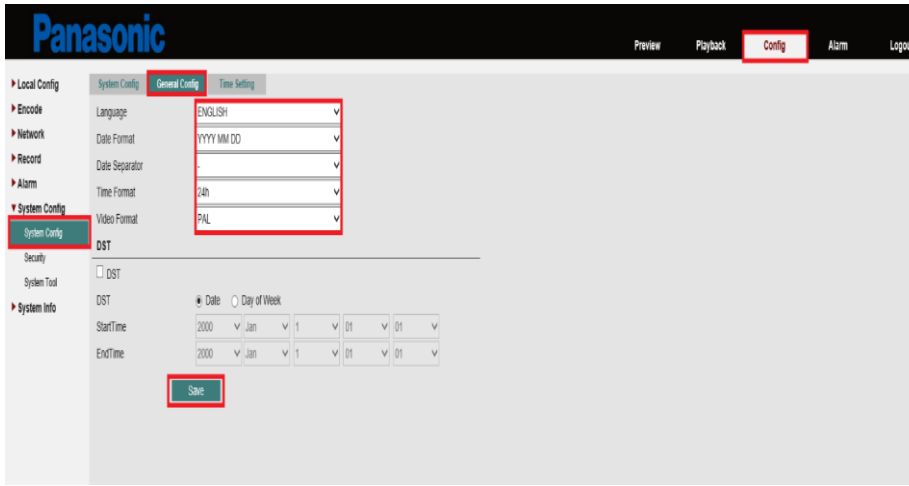
Note: HDD & Audio settings are not applicable for this product.

Click on [Config] > [System Config] > [System Config] as shown below.



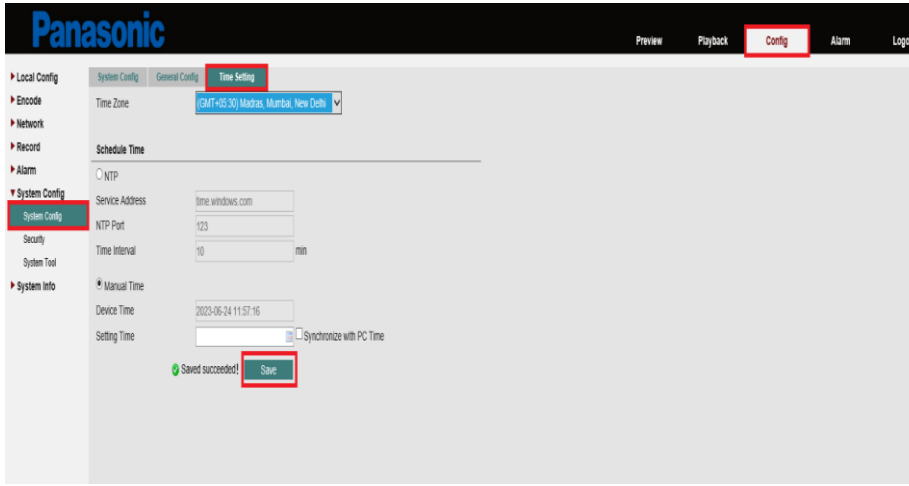
2. General Configuration provides an option to configure language, date & time format & video format.

Click on [Config] > [System Config] > [General Config] as shown below.



3. Time Settings provides an option to select time zone and configure time automatically using NTP server or manually (sync with local PC).

   Click on [Config] > [System Config] > [Time Setting] as shown below.



Security

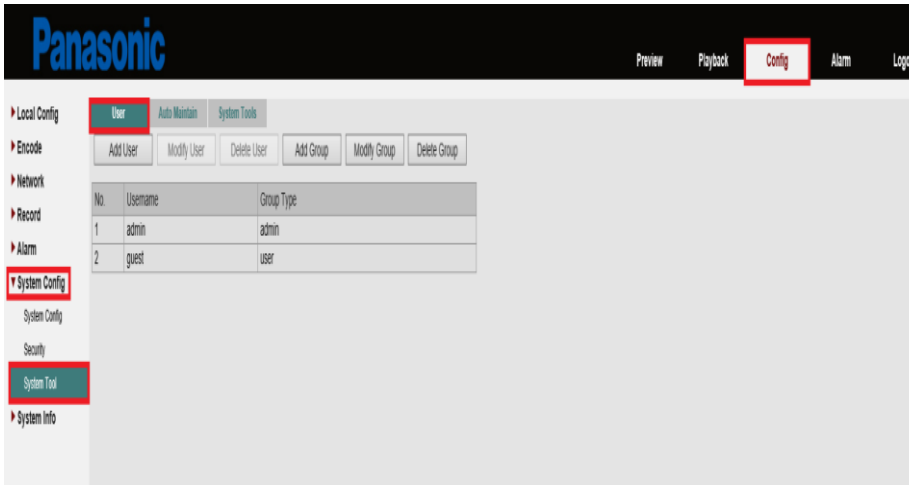
1. Security provides an option to configure Onvif authentication (Password Requirement for the camera), RTSP authentication (Password Requirement for the camera) to basic or Digest.

   Click on [Config] > [System Config] > [Security] as shown below.

System Tool

1. Users provides an option to configure additional users to login using different permissions as allowed by the configuration. Only admin can add, delete, or modify additional users and their permissions.

   Click on [Config] > [System Config] > [System Tool] >[User] as shown below.



2. Auto Maintain provides an option to reboot the camera automatically at desired interval & time.
   We can also select to auto delete old files (Logs).

Click on [Config] > [System Config] > [System Tool] > [Auto Maintain] as shown below.

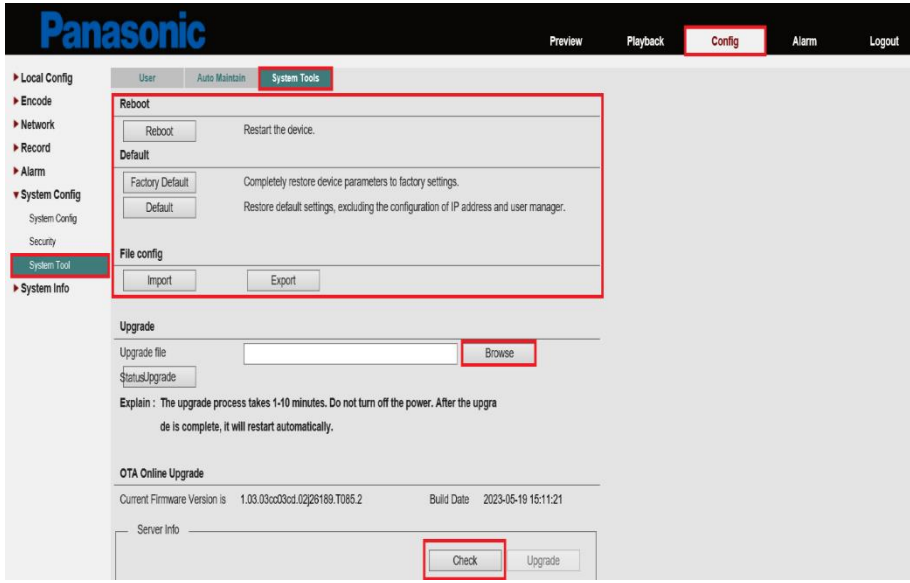
3. System tools provides an option to configure reboot, factory default &default settings of the camera. It also provides an option to import or export the camera configuration file.

   Firmware upgrade option is also available,

   1) local upgrade – User can upgrade the camera by selecting the upgrade file using browse option from local PC drive.
   2) OTA (over the air) – User can check the latest upgrade from the online server by clicking on check button and based on the upgrade available, user can upgrade to the latest firmware.

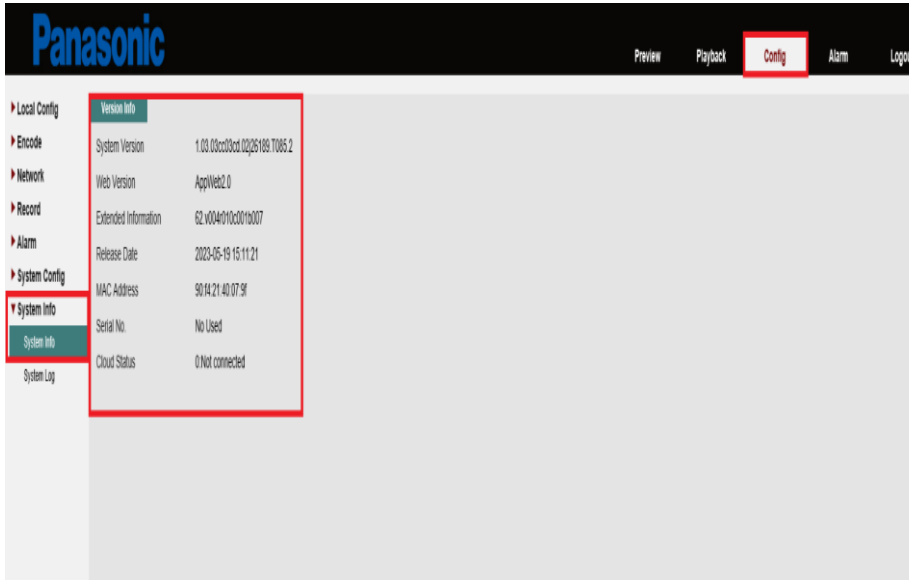
Note: UPS backup is highly recommended to all the devices during firmware/software update.

Click on [Config] > [System Config] > [System Tool] > [System Tool] as shown below.

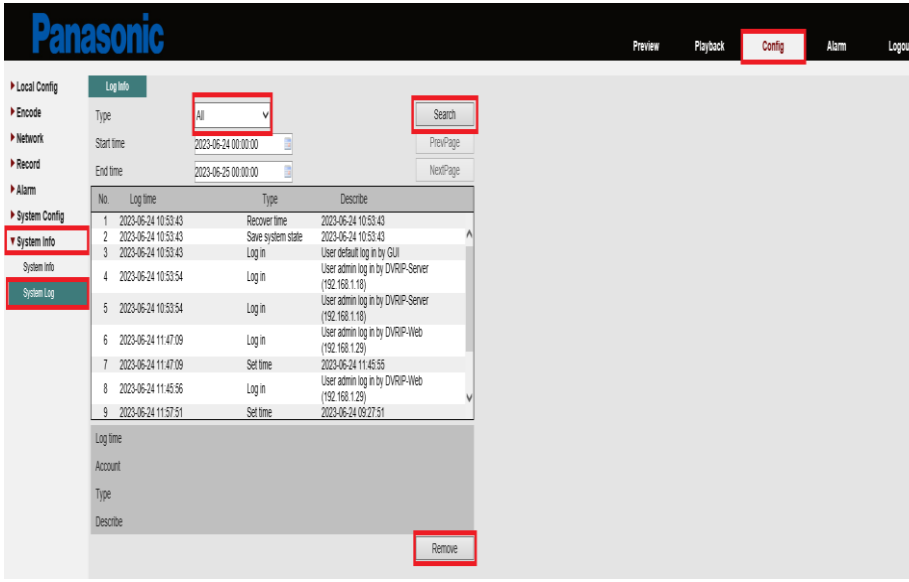


System Information

1. Version information option displays like serial no, software build date, P2P status, & mac address.
   Click on [Config] > [System information] > [System info] as shown below.



2. System logs provides an option to display the logs related to system, configuration, alarm event & Account.
   This also provides an option to manually clear/delete the logs.
   Click on [Config] > [System information] > [System Log] as shown below.



Do's & Don'ts		
No.	Do's	Don'ts
1	All electrical & electronic products are required to be handed over only to the Authorized recycler.	The product should not be opened by the user himself/herself but only be authorised service personnel.
2	The product should be handed over only to authorised recycler for disposal.	The product is not meant for resale to any unauthorised agencies/ scrap dealers/ kabariwalas.
3	Keep the product in an isolated area after it become non-functional/ unrepairable so as to prevent its accidental breakage.	The product is not meant for mixing into household waste stream.
4	Refer to operating instructions for handling of end of life products.	Do not keep any replaced spare part(s) from the product in an exposed area.
5	Always dispose of products that have reached end of life at Panasonic Life Solutions India Authorized Service Centre.	Do not donate old electronic items to anybody. Do not dispose of your product in garbage bins along with municipal waste that ultimately reaches landfill.
6	Wherever possible or instructed, separate the packaging material according to responsible waste disposal options and sorting for recycling.	Do not give e-waste to informal and unorganized sectors like Local Scrap Dealers/ Rag Pickers.

Troubleshooting Points

When troubleshooting IP Camera, there are several points you can consider identifying and resolve issues. Here are some troubleshooting steps you can follow:

1. Check power and network connections:
   - Ensure that the camera is properly powered and connected to the network.
   - Verify that the power cable and network cables are securely connected and functioning.

2. Network configuration:
   - Confirm that the camera has the correct network settings, including IP address, subnet mask, gateway, and DNS configuration.
   - Ensure that the camera is connected to a stable and properly configured network.

3. Verify camera settings:
   - Review the camera settings, such as resolution, frame rate, compression, and encoding formats.
   - Ensure that the settings are appropriate for your needs and compatible with your network and viewing/recording devices.

4. Update firmware:
   - Check if there are any firmware updates available for your camera model.
   - Updating the firmware can address known issues, improve performance, and provide additional features.
   - Follow the manufacturer's instructions to update the firmware properly.

5. Reset to default settings:
   - If you are experiencing persistent issues, you can try resetting the camera to its default settings.

- This will restore the camera to its original configuration and may resolve certain problems.
- Note that this will erase any customized settings, so make sure to document them before performing a reset.

6. Network connectivity issues:
   - If the camera is having trouble connecting to the network or experiencing intermittent connection drops, check the network infrastructure.
   - Ensure that the router or switch is functioning correctly, and there are no network conflicts or IP address clashes.

7. Firewall and port forwarding:
   - If you are accessing the camera remotely or experiencing issues with remote viewing, check your firewall settings and port forwarding configuration.
   - Ensure that the necessary ports (such as HTTP port, RTSP port) are open and properly forwarded to the camera's IP address.

8. Check camera compatibility:
   - Verify that the camera is compatible with the software or recording device you are using.
   - Ensure that you have the appropriate drivers, plugins, or software versions required to access and view the camera's feed.
9. Monitor network bandwidth:
   - High-resolution cameras can consume significant network bandwidth. If you are experiencing network congestion or poor camera performance, monitor the network bandwidth usage and consider optimizing the camera's settings or upgrading your network infrastructure if necessary.

If you've gone through these troubleshooting steps and are still experiencing issues, it may be helpful to consult Panasonic technical support.

TECHNICAL SPECIFICATIONS

CAMERA	
Image Sensor	1/2.7" 3MP Progressive CMOS Sensor
Effective Pixels	2304x1296
Minimum Illumination	Color: 0.01 Lux @ (F1.2, AGC ON), B/W: 0 Lux with IR
S/N Ratio	>60dB
IR Distance	IR Distance 20m
Shutter Speed	Auto, Manual Mode: 1/50 sec~ 1/10000 sec
WDR	80db
IR On/Off Control	Auto/ Manual
IR LEDs	4 Nos Dual Source LEDs, IR Distance 20m & Color Image up to 10m
LENS	
Lens Type	Fixed
Mount Type	M12
Focal Length	3.6mm Lens
Max. Aperture	F1.2
Angle of View	Horizontal Angle- 82°, Vertical Angle- 63°, Diagonal Angle- 92°
Focus Control	Fixed
VIDEO	
Compression	H.265+, H.265, H.264
Streaming Capability	2 Streams
Resolution	3MP (2304x1296)/2MP (1920×1080)/D1(704×576)/ VGA (640×480)/ CIF (352×288)
Streams	Mainstream:3MP/2MP @25/30fps, Sub Stream: D1/ VGA/ CIF @25 FPS
Frame Rate	1 ~ 30fps
Bit Rate Control	CBR/VBR
Bit Rate	221-8192Kbps
Day/Night	Automatic/ Black and white
Exposure Mode	Automatic/Manual-(1/50-1/10000)

BLC Mode	On/Off
Profiles	Auto, Low Light Priority, High Light Priority
Noise Filter	Auto/ 1-5 Levels
Digital Zoom	Supports up to 64X (Area selection with Mouse)
Anti-Flicker	On/Off
AE reference	1-255 Level
AE Sensitivity	1-10 Level
Flip	Off / On
IR reverse	Support
Mirror	Off / On
Text Overlay	Title, Date & Time, Weekday
Privacy Masking	Yes (4 zones)
EVENTS	
Motion Detection	22X18 Zones
Video Blind	Support
Abnormality	No Disk, Disk Error, Disk No Space, Network Cable Disconnected, IP Address Conflict
Smart Functions	Intrusion Detection, Line Crossing Detection, Human Detection
Event Actions	Record alarm, Email link, Upload FTP, Snapshot
PAN-TILT	
3-Axis Adjustment (Bracket)	Pan:0° ~360°; Tilt:0° ~90°; Rotation:0° ~360°
SAFETY	
ONVIF Authentication	ON, OFF
RTSP Authentication	Digest, None
AUDIO	
Compression	G.711A/U
Talk Back	NA
NETWORK	
Ethernet	10/100M adaptive Ethernet interface
Protocol	TCP/IP, IPv4, ICMP, HTTP, HTTPS, HTTP-Base64, HTTP-Digest, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, FTP, IGMP, P2P,IP Filter, Wi-Fi
Interoperability	ONVIF Profile S & T
Max. User Access	30 Users

Edge Storage	Local PC for instant recording, one clicks Snapshot, one clicks triple Snapshot
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Panasonic VMS
Smart Phone	Supports Panasonic PHS for iPhone, Android
INTERFACE	
Audio	1 Input

Notes:

1. Design and specification are subjected to change without notice.
2. Weight and dimensions shown herein are approximate.
3. The Graphics in this manual are only for reference.
4. Your camera may be slightly different from that shown in this manual.

Panasonic Life Solutions India Pvt. Ltd.
http://www.panasonic.com