

MEGAPIX

IP 2.1MP Bullet IR Camera

DWC-MB421TIR
DWC-MB421TIR650



Before installing and using the MEGApix Camera, please read this manual carefully.
Be sure to keep it handy for future reference.

PRECAUTIONS

- Do not open or modify.
- Do not open the case except during maintenance and installation, for it may be dangerous and can cause damages.
- Do not put objects into the unit.
- Keep metal objects and flammable substances from entering the camera. It can cause fire, short-circuits, or other damages.
- Be careful when handling the unit.
- To prevent damages, do not drop the camera or subject it to shock or vibration.
- Do not install near electric or magnetic fields.
- Protect from humidity and dust.
- Protect from high temperature.
- Be careful when installing near the ceiling of a kitchen or a boiler room, as the temperature may rise to high levels.
- Cleaning: To remove dirt from the case, moisten a soft cloth with a soft detergent solution and wipe.
- Mounting Surface: The material of the mounting surface must be strong enough to support the camera.

FCC COMPLIANCE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference, when the equipment is operated in a residential environment. This equipment generates, uses, and radiates radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications.

WARNING: Changes or modifications are not expressly approved by the manufacturer.

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FEATURES*

- ONVIF Compliant
- 2.1 MEGApixels (1080P, 30fps)
- Triple Codecs (H.264, MJPEG, MPEG4) with Dual-Stream
- 1/2.8" CMOS Sensor (7% Larger Than 1/3" CMOS Sensor)
- 3.5~16mm Auto Focus Lens [DWC-MB421TIR]
- 5~50mm Remote Auto Focus Lens [DWC-MB421TIR650]
- 4X Digital Zoom, 4.5X Optical Zoom [DWC-MB421TIR]
- 4X Digital Zoom, 8X Optical Zoom [DWC-MB421TIR650]
- 100ft IR with Intelligent Camera Sync
- TDN (True Day and Night)
- Power over Ethernet [PoE] & DC12V
- Two-Way Audio
- Micro SD/SDHC Class 10 Card for Emergency Backup
- IP66 Certified (Weatherproof)
- No Fog or Condensation under Any Weather Conditions
- Web Server Built-in
- WDR (Wide Dynamic Range)
- 3D-DNR (3D Digital Noise Reduction)
- Programmable Privacy Zones (30) & Motion Detection

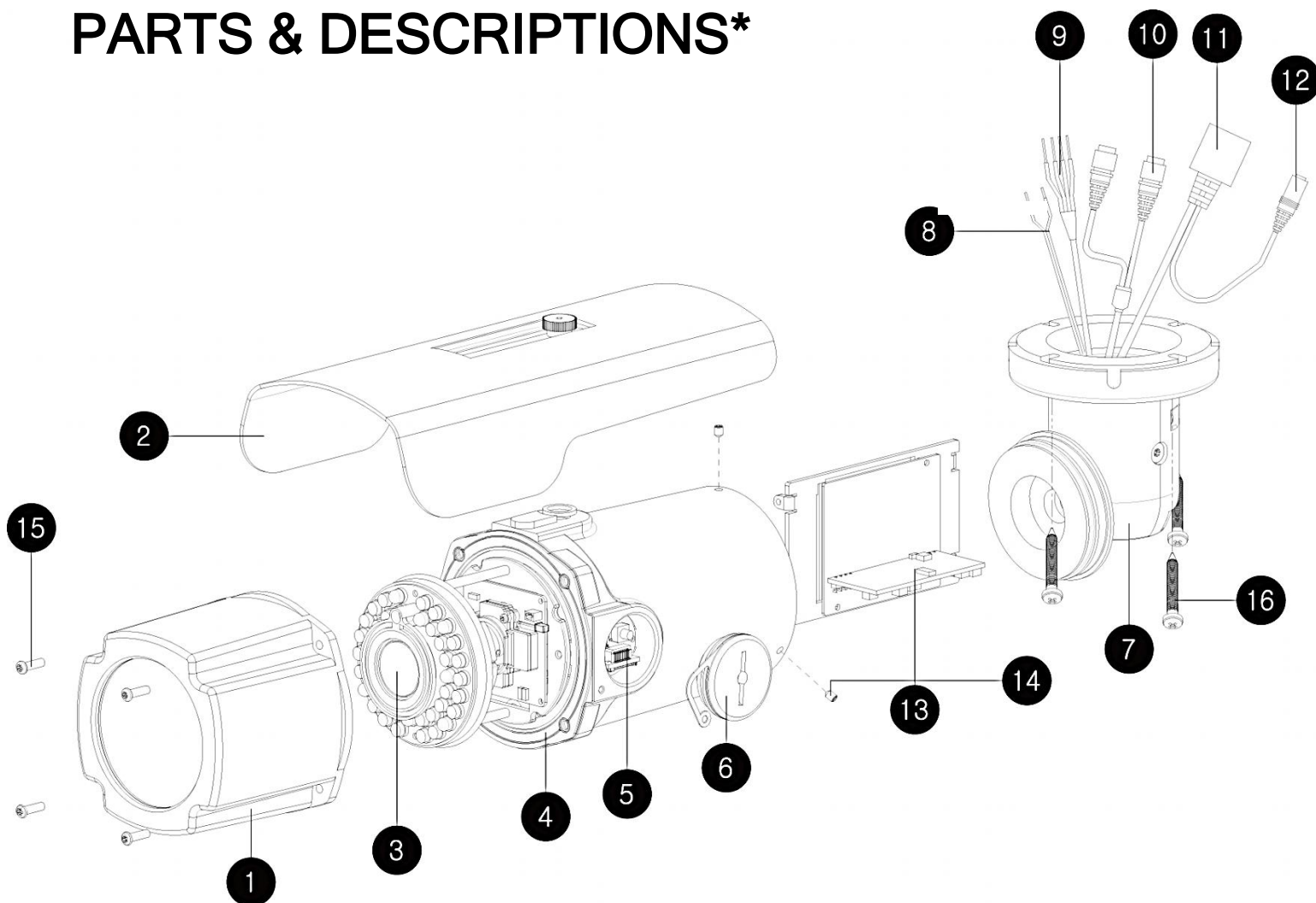
INSIDE THE BOX*

The following items are included with the MEGApixEL Camera:



1. Quick Start Guide
2. Mounting Template
3. Mini- CD (Including Manual, QSG, & IP Finder Software)
4. Four (4) Screws and Four (4) Dry Wall Anchors
5. Second BNC Video Jack
6. L-Key
7. Double Sided TROX-T20 Hex Key
8. Bullet Camera

PARTS & DESCRIPTIONS*



1. Front Case

2. Sunshield

3. Lens

4. Rear Case

5. Control Board

6. Con Cap

7. Ball Neck Bracket

8. RS-485 Connection Cable

9. Alarm In/ Out Connection Cable

10. Audio In/ Out Connection Cable

11. RJ45 Network Connection Cable

12. Power Connection Cable (Max 2.2[W])

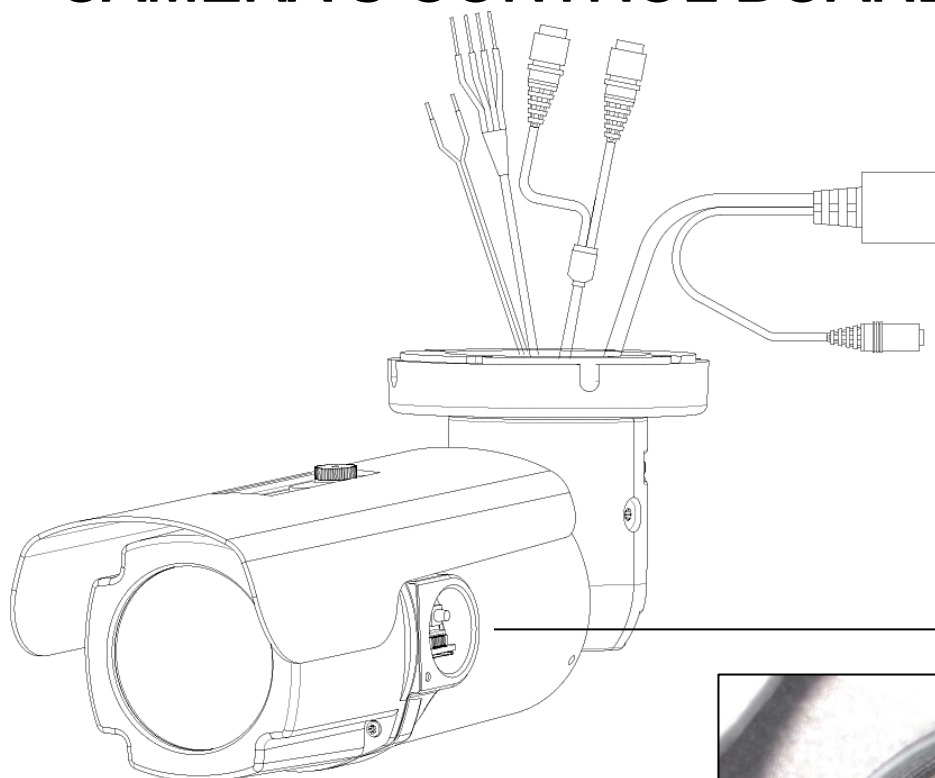
13. IP Board

14. Set Screw

15. Assembly Screw

16. Fixing Screw

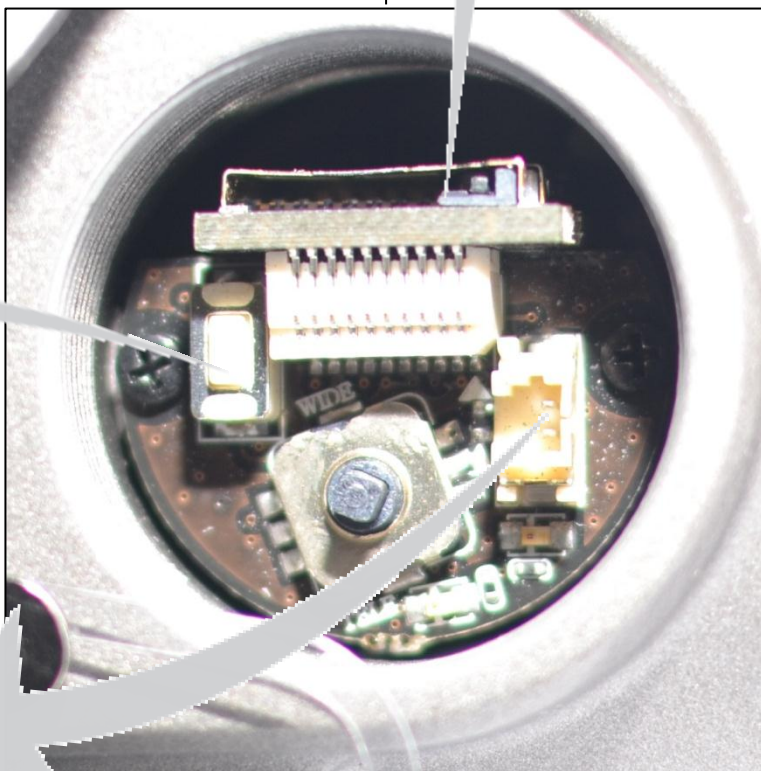
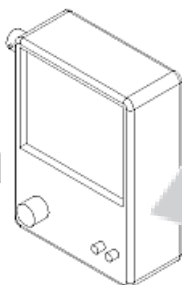
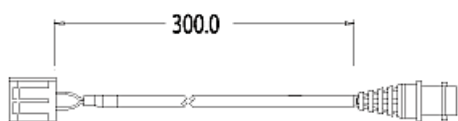
CAMERA'S CONTROL BOARD*



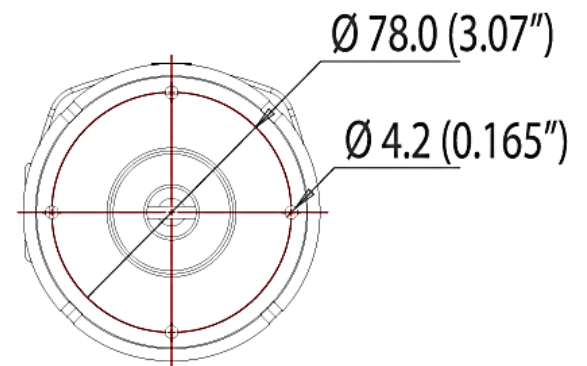
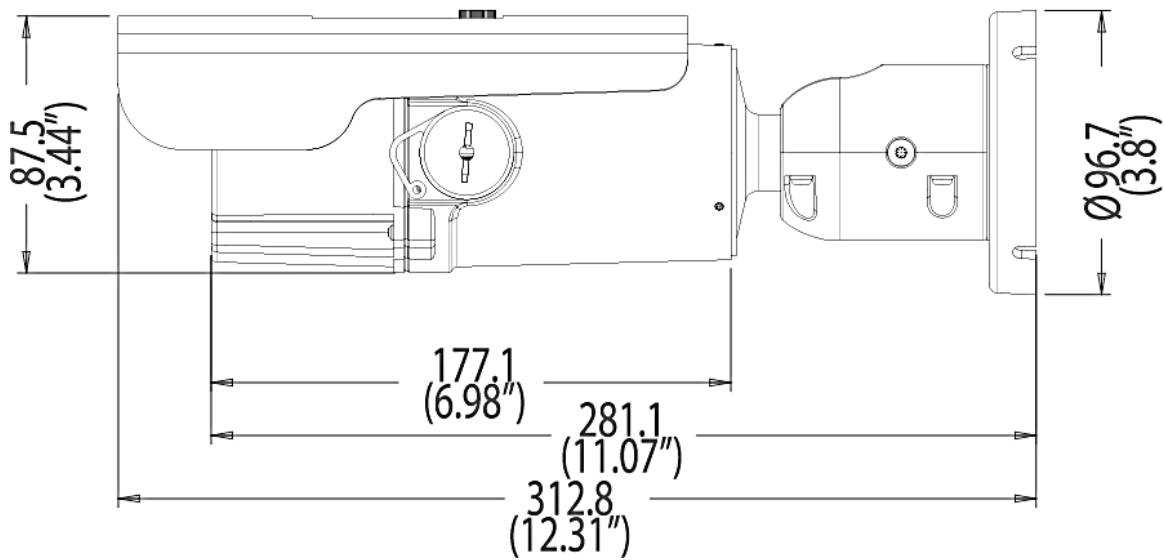
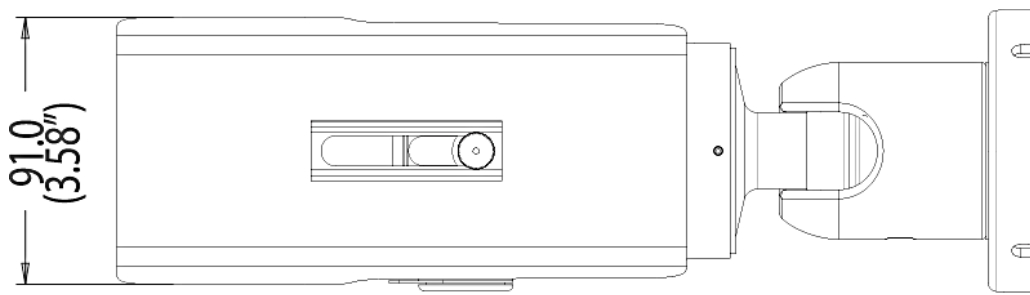
■ SD CARD Slot

- Reset Switch
- Reboot the system and start immediately.

- Second Video Connector



DIMENSIONS*



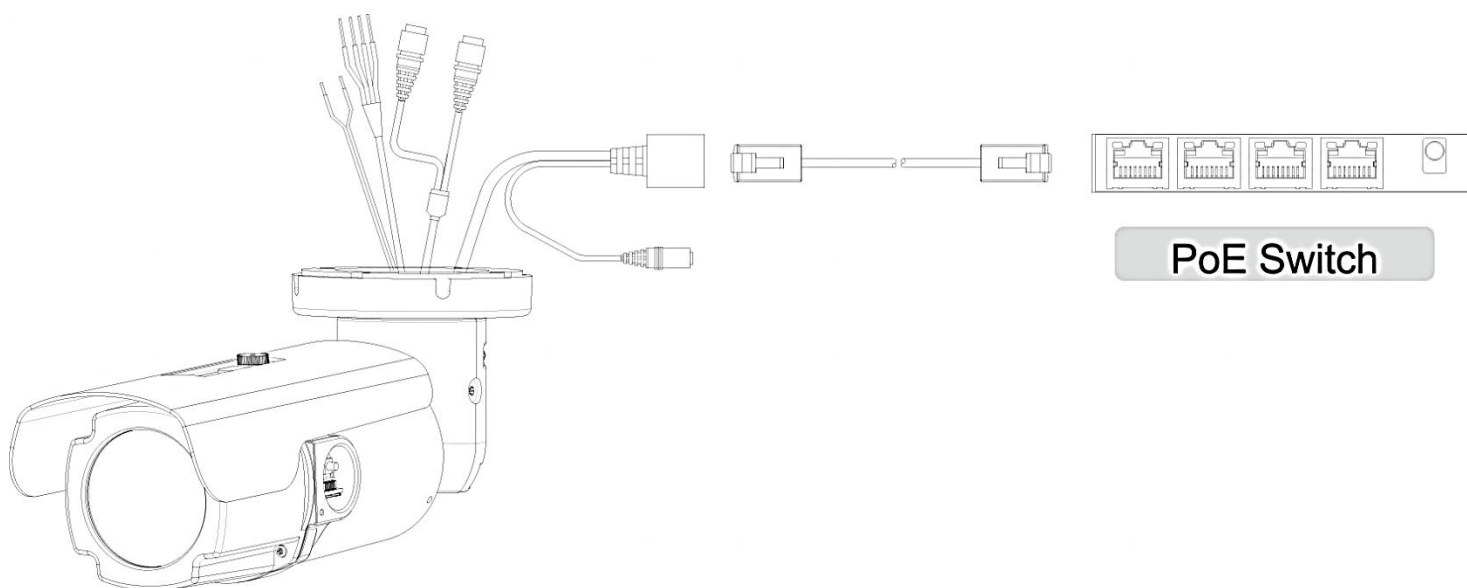
NETWORK CONNECTION*

Two Options

Use a PoE-enabled switch to connect data and power through a single cable and begin viewing and recording images instantly. A non-PoE switch will require an adaptor for power transmission.

1. Using a PoE-Enabled Switch

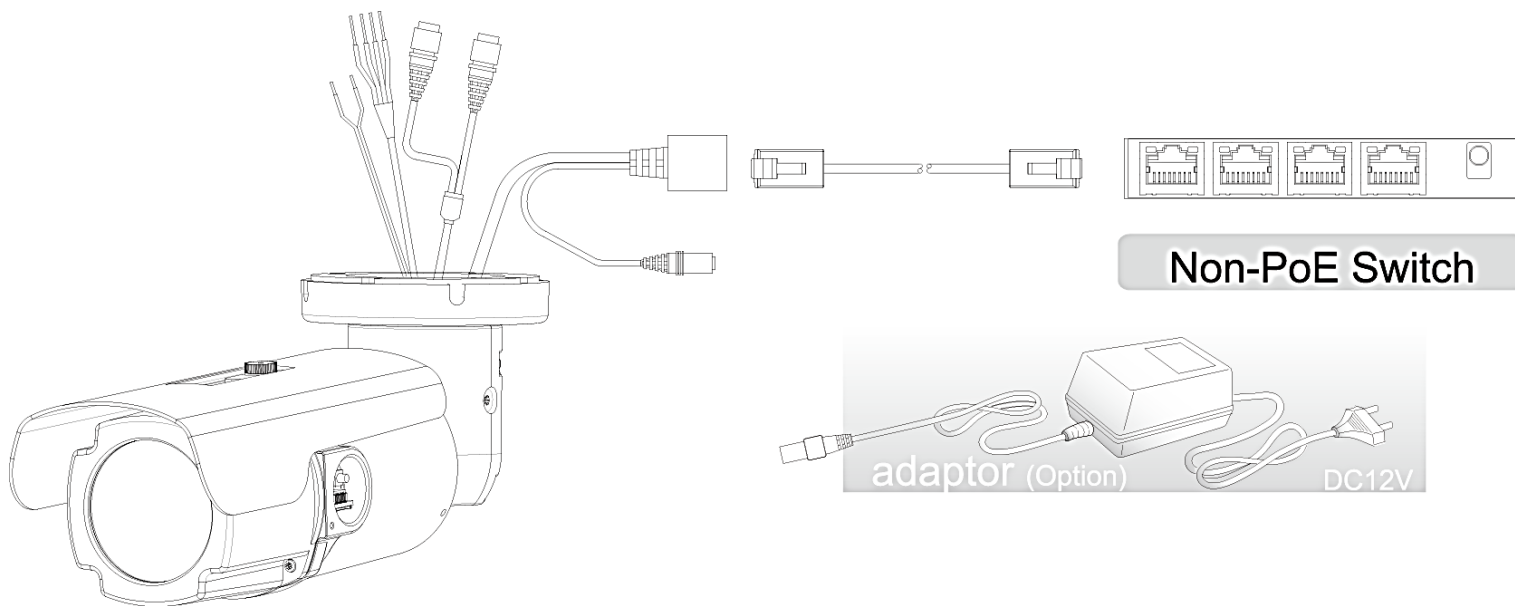
The MEGApix Camera is PoE-Compliant, allowing transmission of power and data via a single Ethernet cable. PoE eliminates the need for the different cables used to power, record, or control the camera. Follow the illustration below to connect the camera to a PoE-enabled switch using an Ethernet cable.



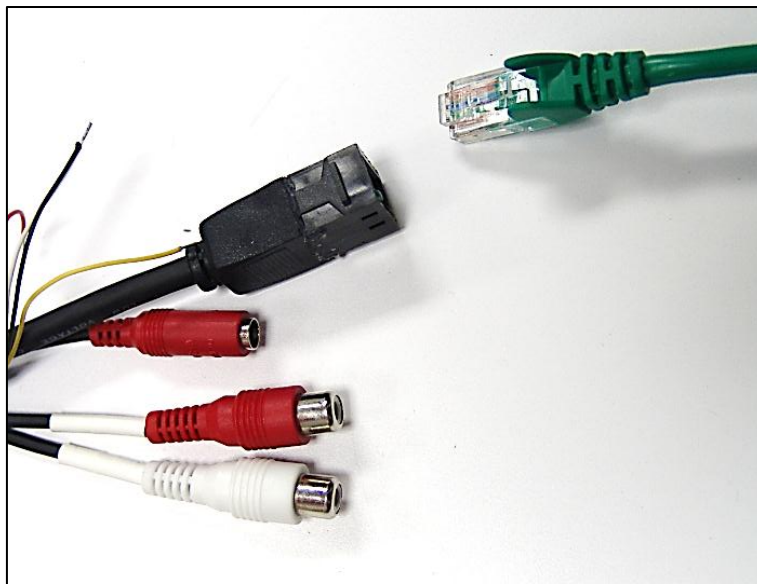
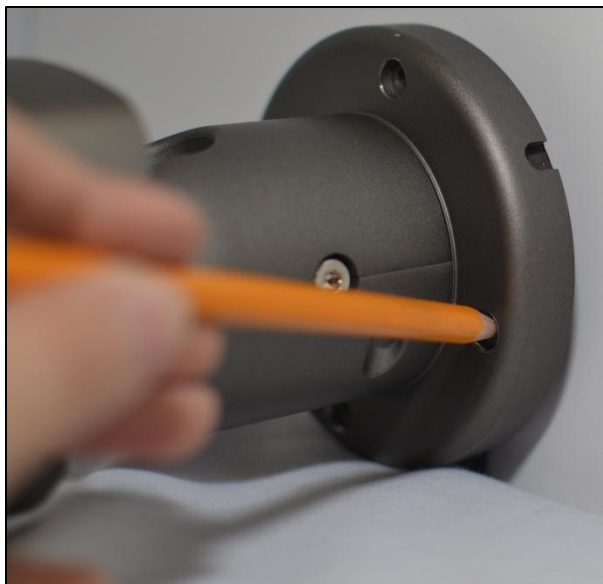
NETWORK CONNECTION*

2. Using a Non-PoE Switch

If a PoE-enabled switch is not used, use a power adaptor for power transmission and non-PoE switch for data transmission. Follow the illustrations below to connect the camera without a PoE-Enabled Switch.

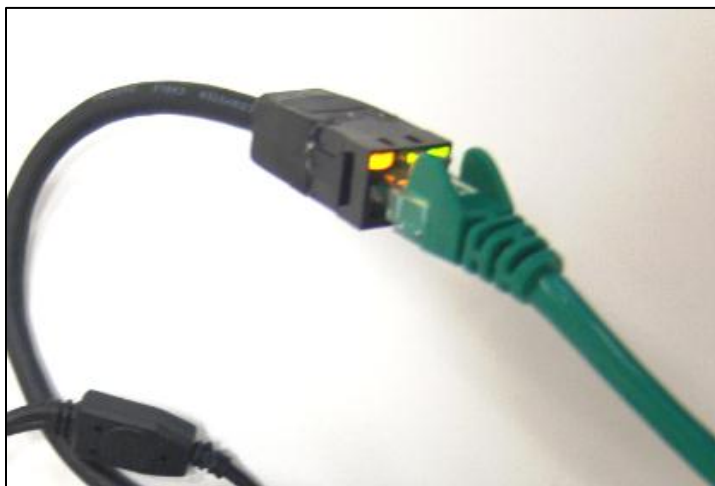


INSTALLATION*



1. Using the mounting template or your own camera, mark and drill the necessary holes to mount the bracket to a wall or ceiling.

2. Pull wires through and make all necessary connections.
3. Connect the RJ45 to a CAT5 Cable.
4. Connect the Audio and Relay Control cables.



5. Check the LED light. Green light flickers for booting. Red light turns on when booting is complete.

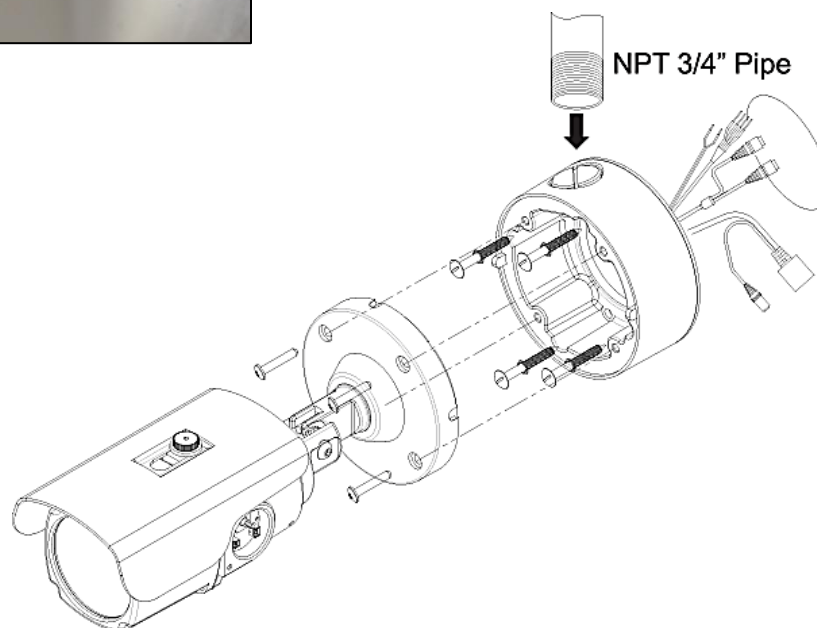
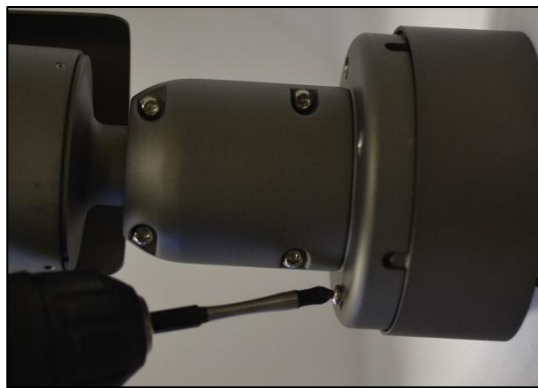
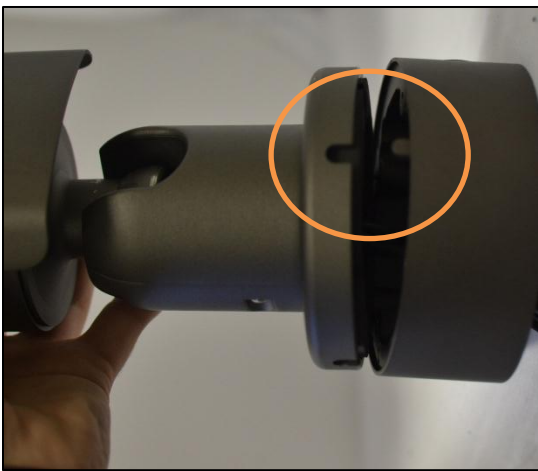


6. Use the four (4) mounting screws to install the cameras on the wall or ceiling.

INSTALLATION*

Junction Box for Bullet Housing

1. Using the mounting template or your own junction box, mark and drill the necessary holes and secure the junction box to a wall or ceiling.
2. Align the camera with the junction box.
3. Secure the camera to the junction box with the included screws.



*Note: Electrical junction box and required screws are sold separately.

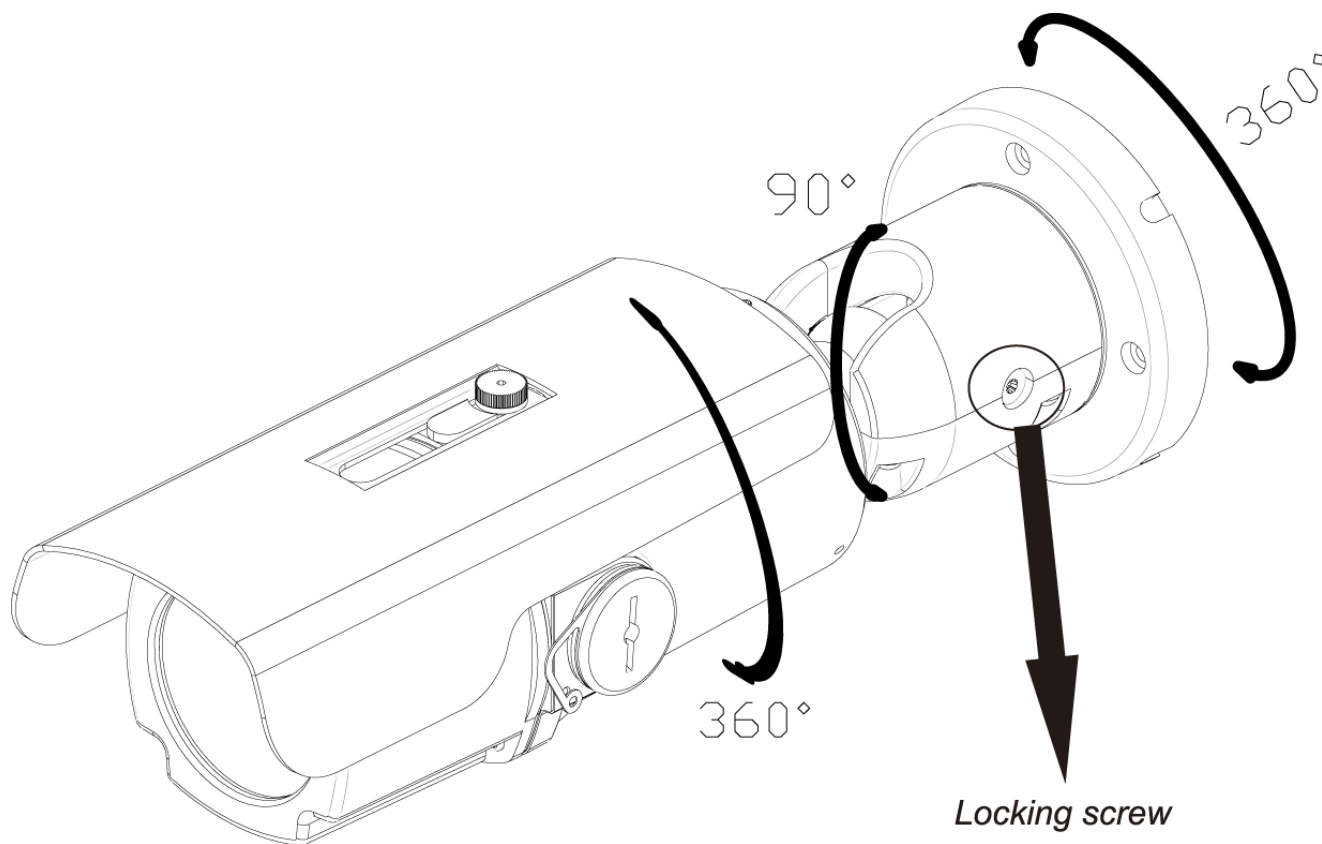
INSTALLATION*

Adjusting the Camera's Angle

The MB421 Series is equipped with 360° Rotating Camera board and a 90° Tilting and 360° Rotating Ball Neck Bracket.

To Adjust the Camera's Panning Angle (360°) and Tilting Angle (90°):

1. Use the L-Wrench to loosen the Locking Screw at the base of the camera's Bracket by turning it counter clockwise.
2. Holding the camera's body, rotate the camera 360°.
3. To adjust the Bracket's tilting angle, move the camera up or down.
4. When all adjustment are complete, tighten the Locking Screw by rotating it clockwise.



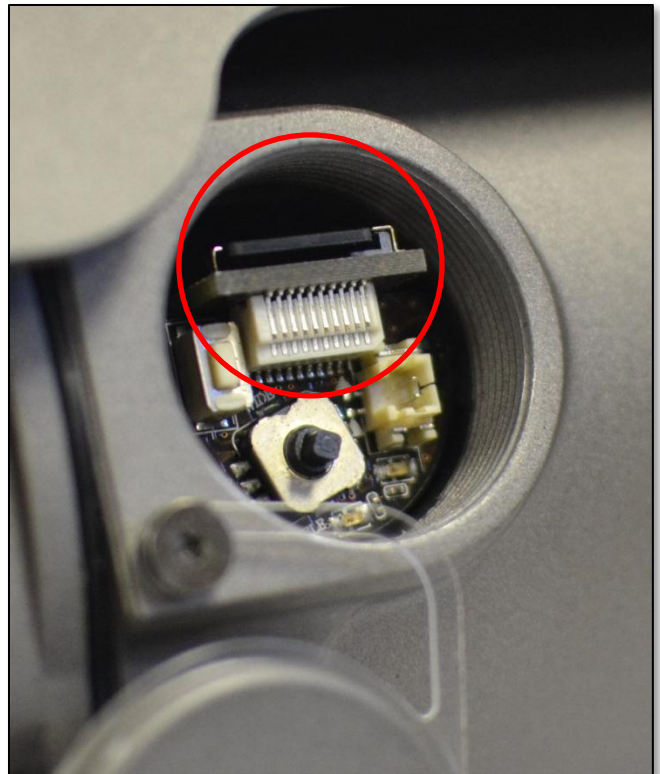
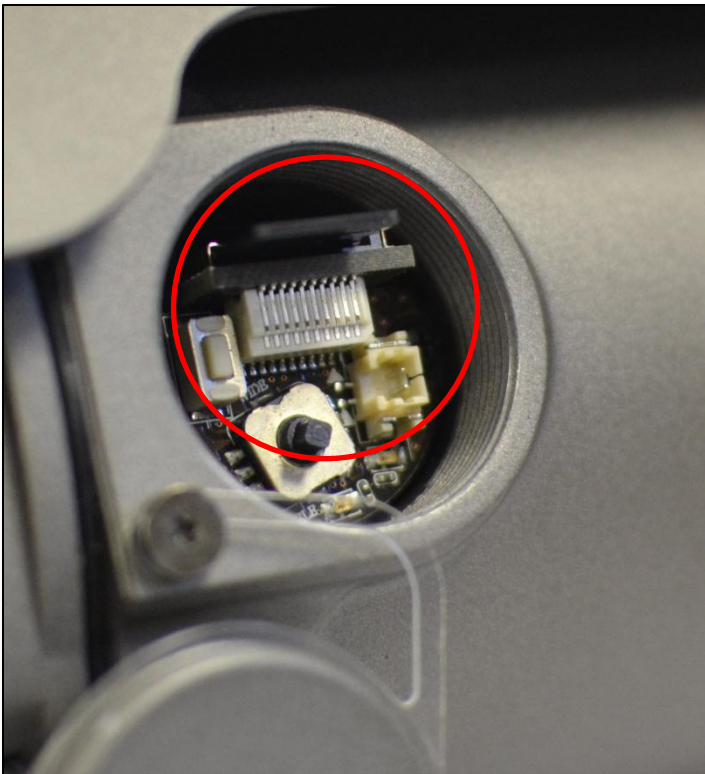
INSTALLATION*

Storage Device

The MB421TIR MEGApix Series offer the option of local emergency backup in case of network loss.

To install the SD card:

1. Unscrew the Locate the Con Cap on the side of the camera to locate the camera's SD Card slot.
2. Insert the SD card in the slot and push it down, until you hear a 'click' sound.
3. To remove SD card, press the SD card down until you hear a 'click.' The SD card will eject from the slot.
4. Upon completion, go to the camera's Webviewer. (See page 44 for more information.)

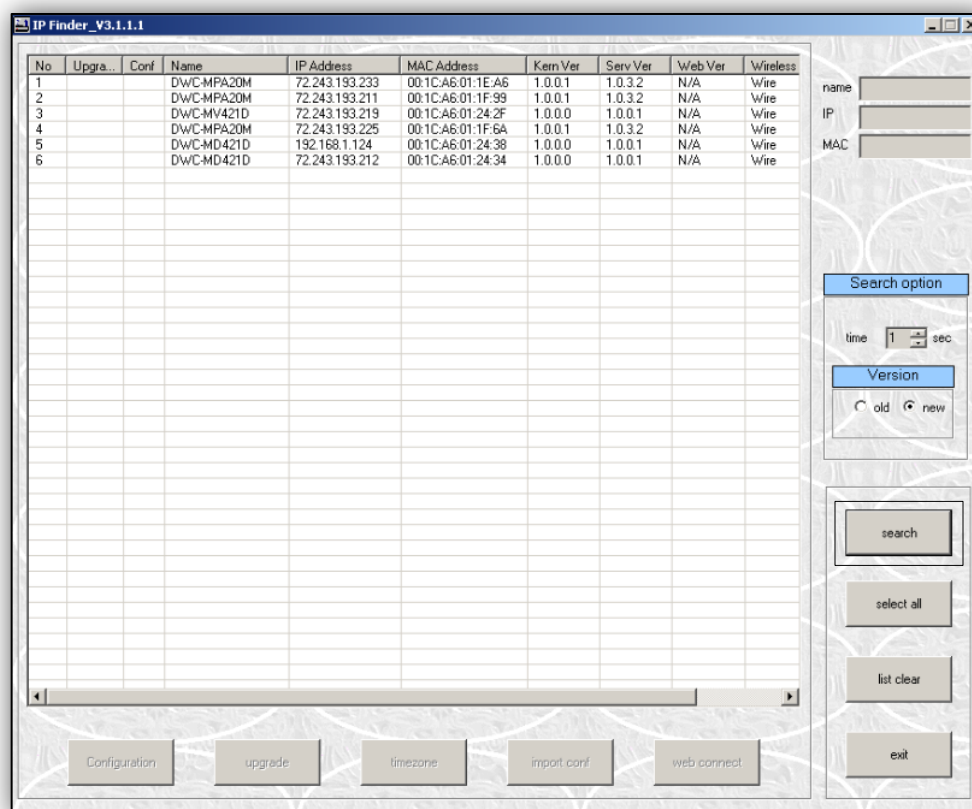


IP FINDER SOFTWARE*

Installing IP Finder Software

IP Finder searches for all the available Digital Watchdog devices currently connected to your network.

1. Install **IP Finder** to find the MEGApix camera on your local network. The software can be found on the included User Manual CD. Run **IP Finder** and install onto your PC.
2. When setup is complete, launch **IP Finder**.
3. To find your MEGApix camera, click the **Search** button. Your MEGApix camera will appear as "**DWC-MB421TIR**" or "**DWC-MB421TIR650**".
4. Select the desired device and select **Web Connect** to access the camera directly via Internet Explorer.



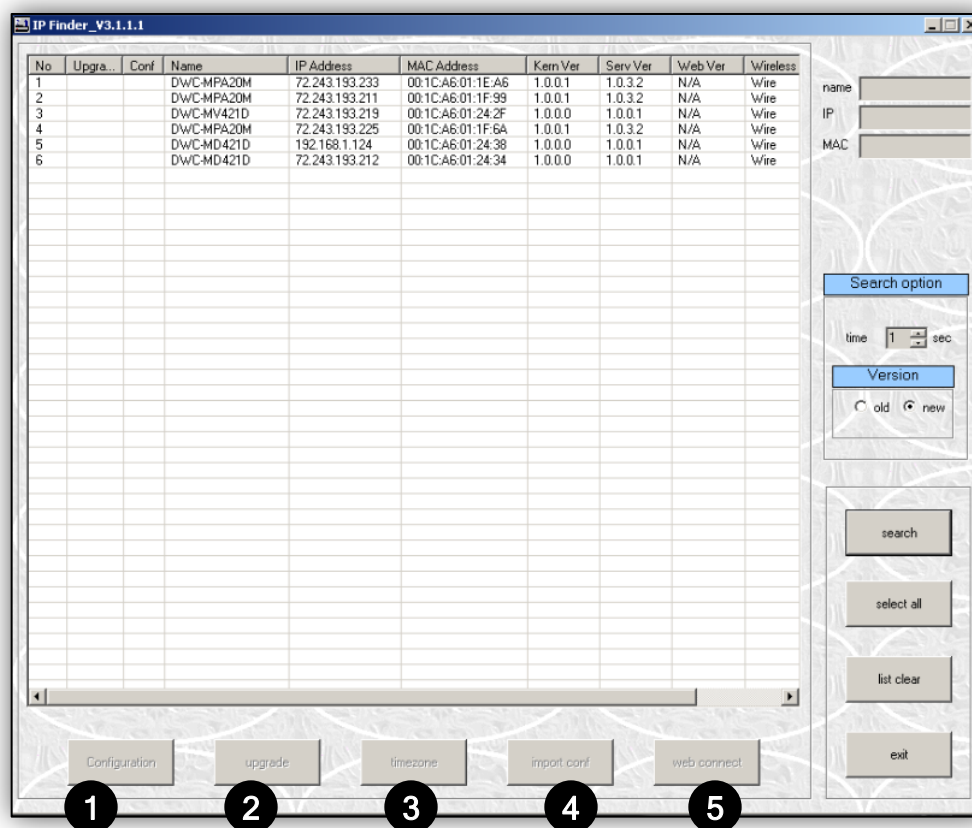
*Be sure to install the IP Finder to a computer located on the same network segment (Subnet Mask) as the MEGApix camera.

IP FINDER SOFTWARE*

Using IP Finder Software

Use IP Finder to change the basic settings of your MEGApix camera or to connect to your MEGApix camera.

1. **Configuration:** Change the device's connection type and/or IP address information. Please see the next page for further explanation.
2. **Upgrade:** Upgrade the device's firmware.
3. **Time Zone:** Change the time zone.
4. **Import Config:** Import setup configuration for a specific device.
5. **Web Connect:** Connect to the MEGApix camera through Internet Explorer.

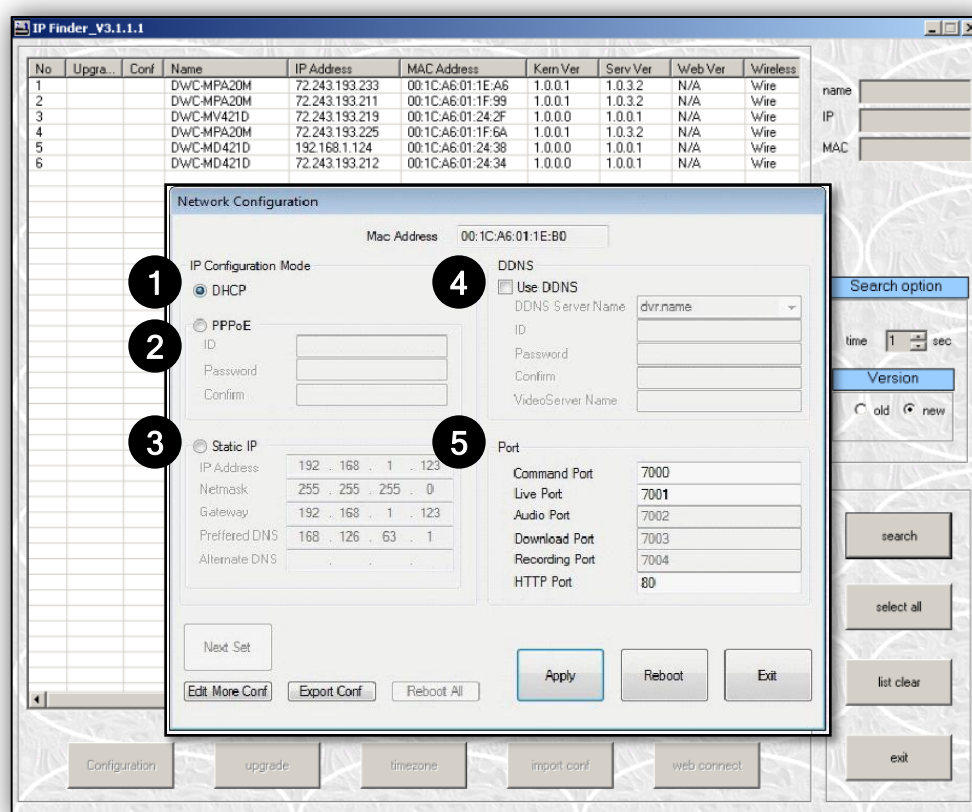


IP FINDER SOFTWARE*

Using IP Finder Software

Use IP Finder to set the connection type and the IP address information for your MEGApix camera.

- DHCP:** Select DHCP to access the camera within the same internal network.
- PPPoE:** Use this option when using WAN service. To use WAN service, a User ID and Password from your internet service provider is required.
- Static IP:** Select Static to connect to the camera from an external network.
- Use DDNS:** Check this option to use DDNS service.
- Port:** Displays the port numbers that are required for communication. User can use IP Finder to change other basic settings for the MEGApix camera. (The menu will be different depending on the model.)



*If you decide to change the camera's IP, write down the camera's MAC Address for identification in the future.

IP FINDER SOFTWARE*

DHCP

The Dynamic Host Configuration Protocol (DHCP) is a network configuration protocol that allows a device to configure automatically according to the network it is connected to.

If your network supports DHCP, and your MEGApix camera is setup as DHCP; then once you search for your camera using IP Finder, the search results will display your MEGApix camera with already set network settings that correspond to your network requirements.

Static

Static IP addresses are recommended when using a network that does not support DHCP. If Static is selected, then you must manually enter all the network settings for your MEGApix camera that would correspond with your network. Static IP addresses are recommended if you want to setup your device to be accessed externally via the internet. For each setup of the camera to a static IP address, it is recommended that you first setup the camera to DHCP, allow it to configure itself according to your network, and then change the settings to a static IP address.

1. To set your MEGApix camera to static, highlight the desired device from the search results list, and click on Configuration. In the new setup window, make sure static is selected.
2. Enter the following information: **IP Address**, **Netmask**, **Gateway**, **Preferred DNS**.
3. Click **Apply** and **System Reboot** to save all changes.

DDNS

Dynamic Domain Server is a feature that allows you to use a URL instead of an IP address to access your MEGApix camera. The feature is optional, for it may require subscription and payment.

1. To use the DDNS feature, check the box next to **Use DDNS**.
2. Select the server you wish to use. *Some servers may require subscription and payment.
3. Enter the desired **Hostname**.
4. If applicable, enter the **User ID** and **Password**.
5. Click **Apply** and **System Reboot** to save all changes.

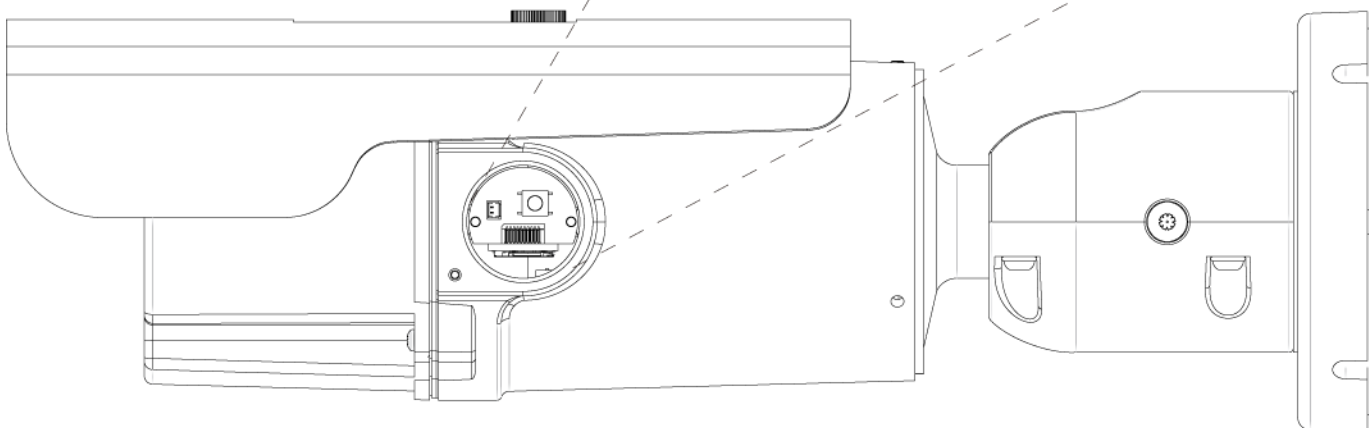
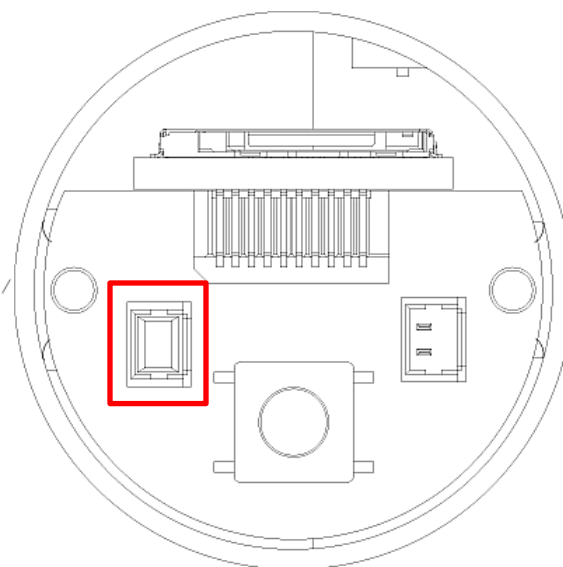
CAMERA REBOOT*

Resetting the Camera

Pressing the reset button on the camera's control board for five (5) seconds will initialize all environmental variables to factory default. Previous setup for IP default, time, etc. will be deleted. If a system's IP address is lost, reset the camera back to factory default.

The following are the default network settings.

IP Mode	DHCP
IP Address	192.168.1.123
Subnet Mask	255.255.255.0
Gateway	192.168.1.123
Base Port	7000
HTTP Port	80



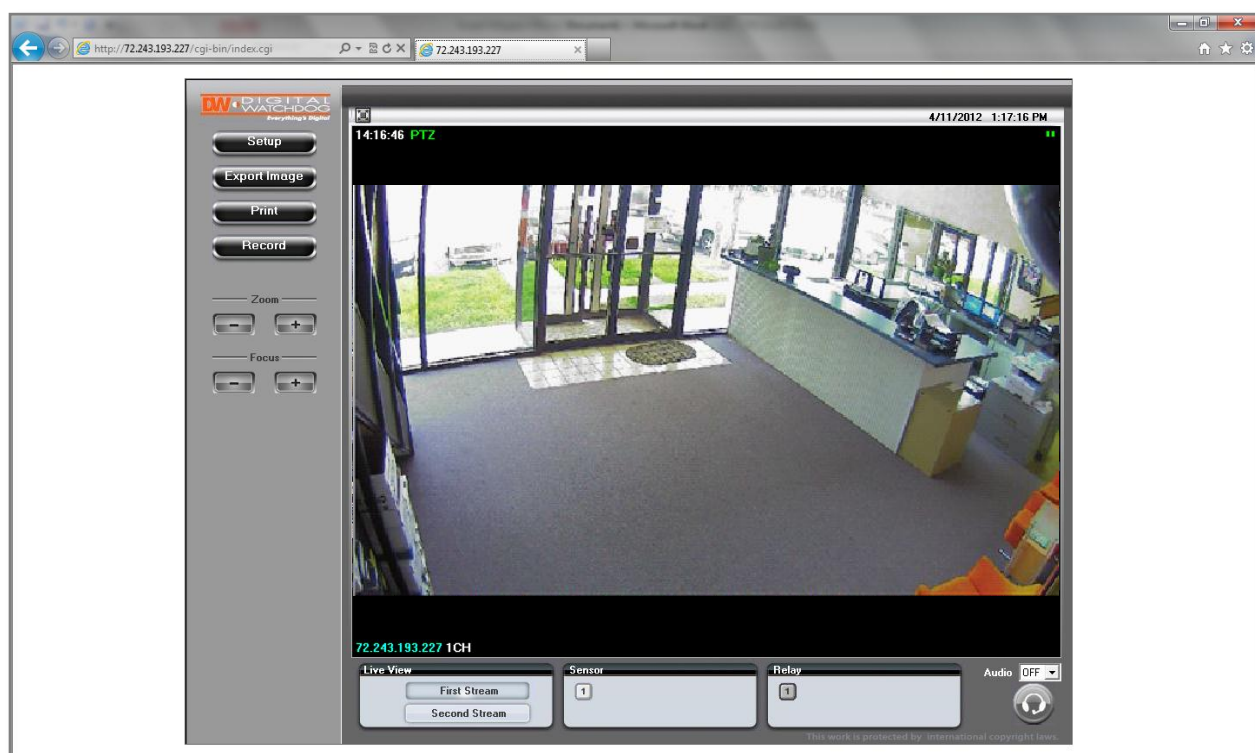
*Frequent use may cause system error.

WEBVIEWER*

Remote Video Monitoring Via Internet Explorer

Monitor and configure the MEGApix camera through a built-in Webviewer.

1. Type the IP address of the camera on the Internet Explorer window.
Example: <http://192.168.1.123> (Factory Default)
2. Enter Username and Password.
Username: admin | Password: admin
3. The web browser will ask to install Active-X Control. Once it has been installed, Internet Explorer will display video images from the camera.



WEBVIEWER*

Remote Video Monitoring Via Chrome, Firefox, or Safari

You can view your MEGApix camera using web browsers other than Internet Explorer. To do so, at least one of the streams of the camera must be set to the codec MJPEG.

1. Open Google Chrome, Mozilla Firefox, or Apple Safari Web Browser.
2. Enter the IP camera's IP address. NOTE: If the first stream is set to H.264, then a video will not be displayed on the GUI.
3. Click the Setup button. Then go to Video & Audio > Stream Settings.
4. Modify one of the two (2) streams to the codec MJPEG.
5. When you are finished modifying the streams, click Apply to make sure all changes have been saved and your camera has been rebooted.
6. Exit the screen to return to the camera's main page.
7. At the bottom of the page, select the stream you set as MJPEG. The camera will start streaming video.

web setup | remote backup |

Video & Audio

- Stream Settings
- Color Settings
- Audio Settings
- Privacy Zone

Event

Network

Record

System

Stream Settings

First Stream

Name : 1CH

Resolution : 1920x1080 (16:9)

Compression Type : H.264

Data Transfer Speed : 4000 [1800 ... 8000] Kbps

Framerate : 30 (fps)

MJPEG Quality : Normal

Second Stream

Name : 2CH

Resolution : 960x544 (16:9)

Compression Type : MJPEG

Data Transfer Speed : 4000 Kbps

Framerate : 30 (fps)

MJPEG Quality : Normal

Apply Reload

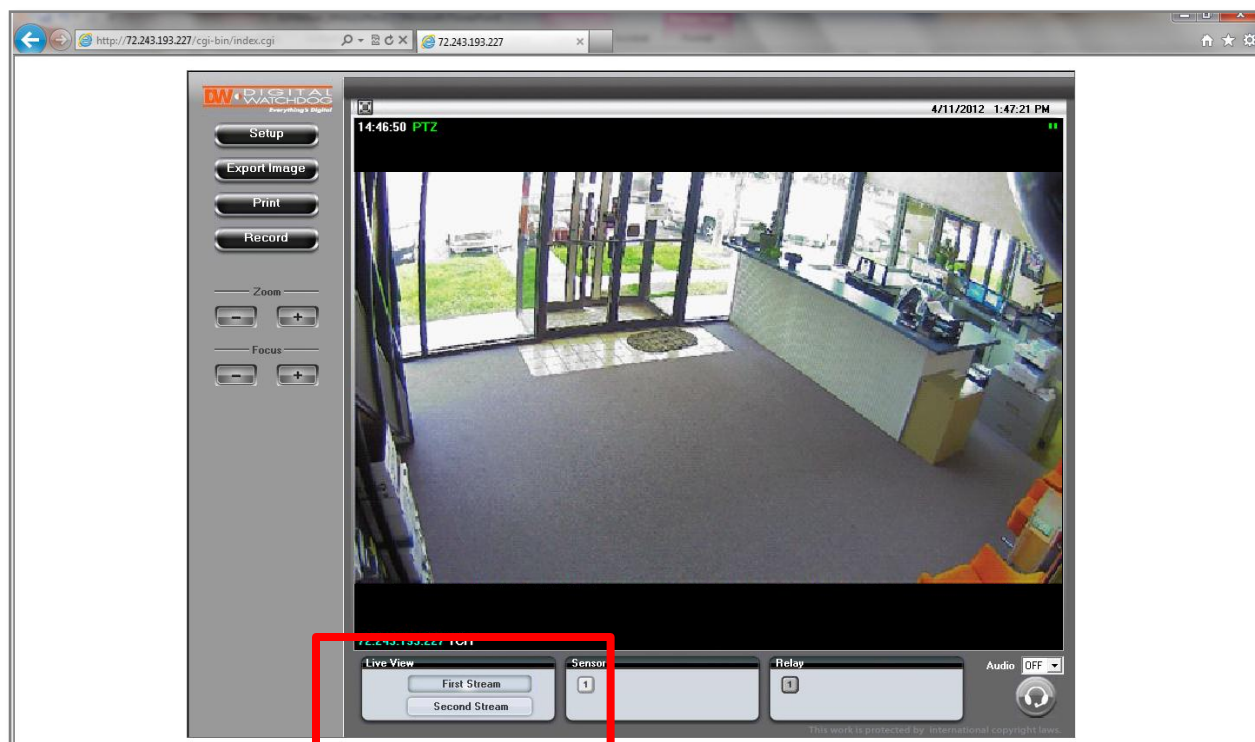
WEBVIEWER*

Display Screen > First Stream & Second Stream

Configure two stream settings for monitoring and recording.

On the main monitoring page, user can view the camera with the First Stream settings or the Second Stream settings. Below the display screen, click on the First Stream and Second Stream buttons to view the different camera settings.

- To setup Stream Settings, refer to page 30.

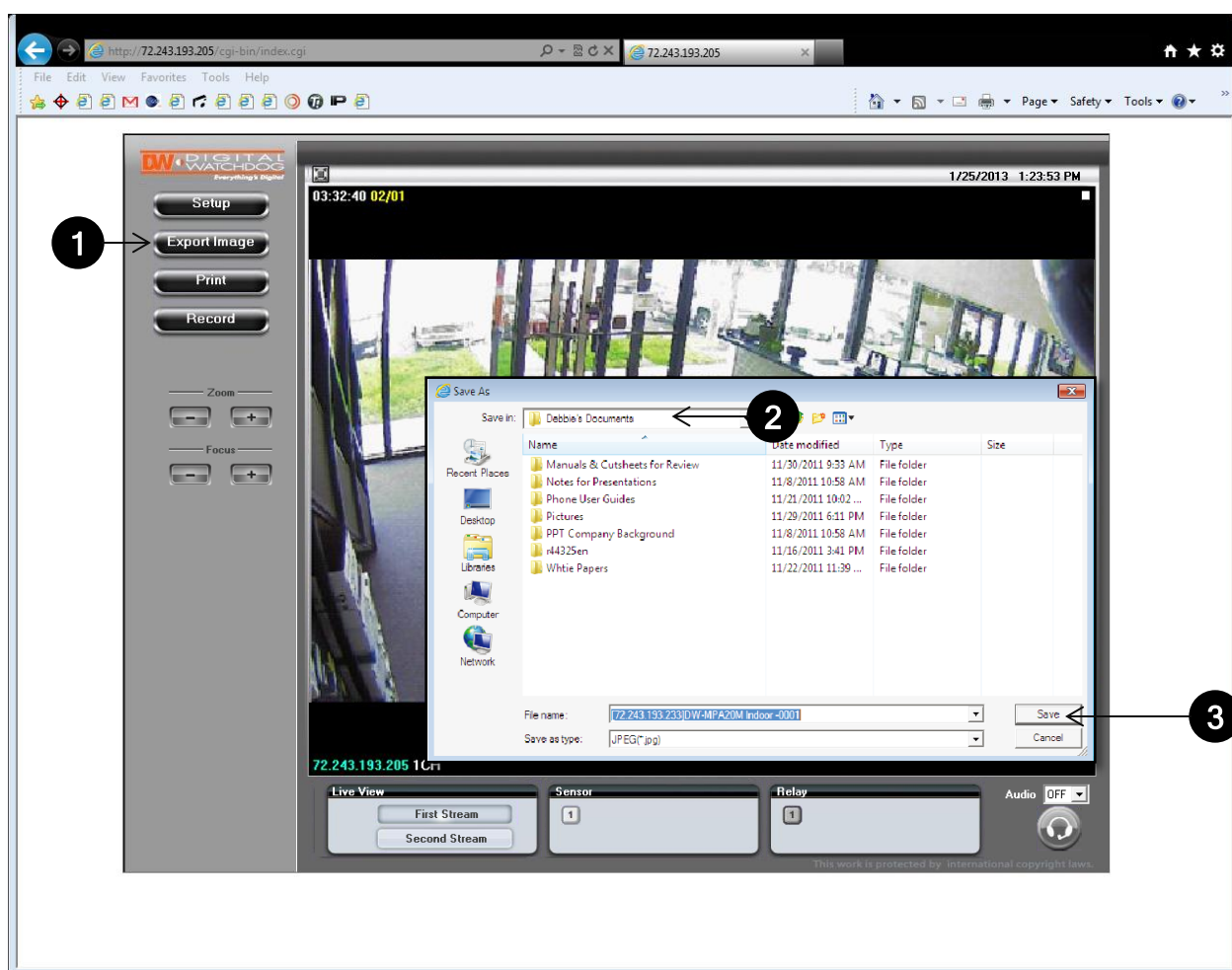


WEBVIEWER*

Display Screen > Export Image

Export a screenshot of current live video to your computer.

1. Select the Export Image button. A 'Save As' window will appear.
2. Select the folder you wish to Save in and type a File Name.
3. Click 'Save' and the screenshot will be saved.*



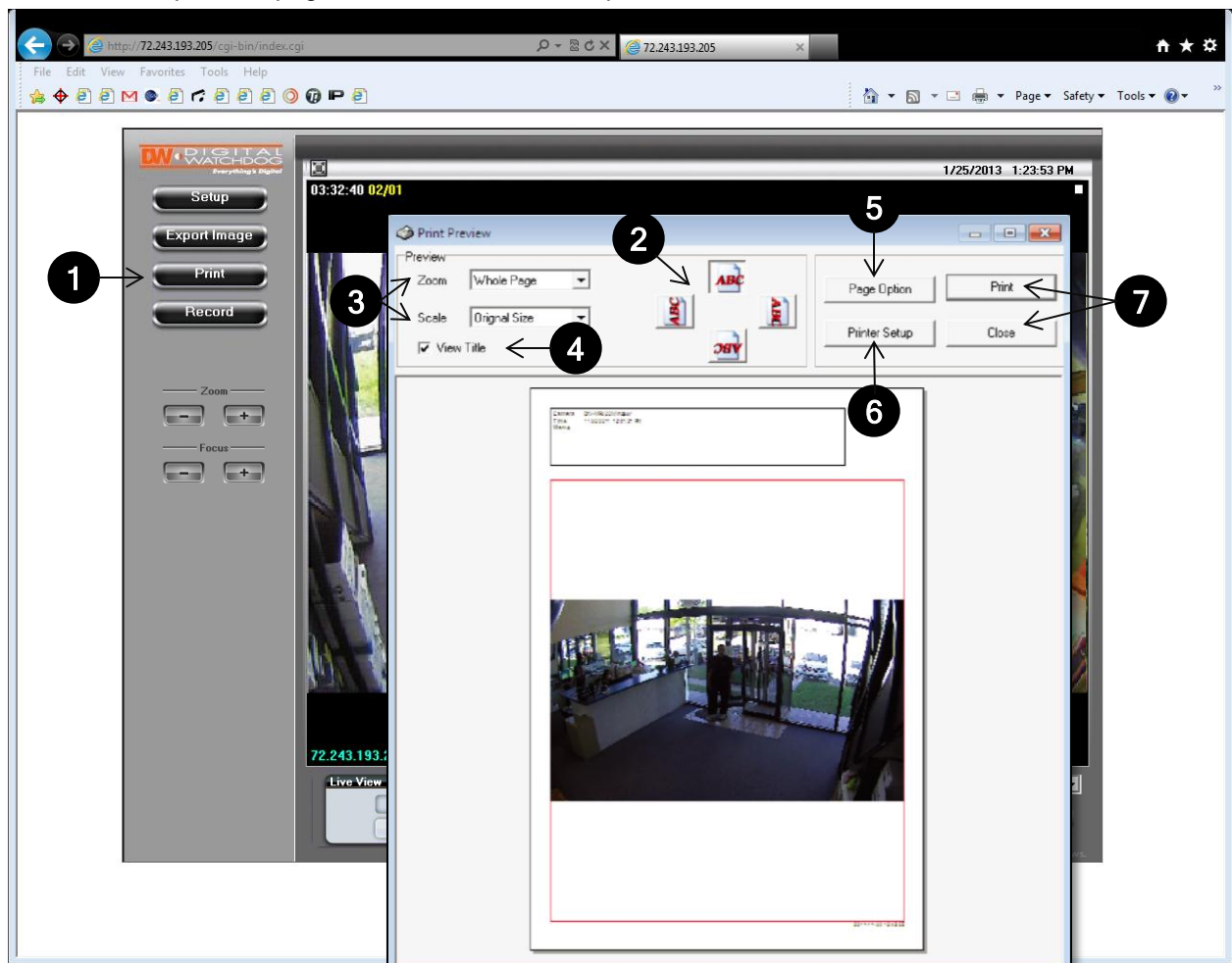
*By default, image can only be saved as a JPEG file.

WEBVIEWER*

Display Screen > Print Image

Print a screenshot of the current live video.

1. Select the Print button. The Print Preview window will appear.
2. Adjust the orientation of the screenshot: portrait or landscape, facing left, right, up, or down.
3. Zoom in on a portion of an image prior to printing or select the image's scale on the page:
4. To print information about the screenshot, select View Title.
5. To add a memo for the screenshot, select Page Option.
6. Go to Printer Setup to select the printer and manage printer properties.
7. Select Print to print the page, or Close to cancel the print.



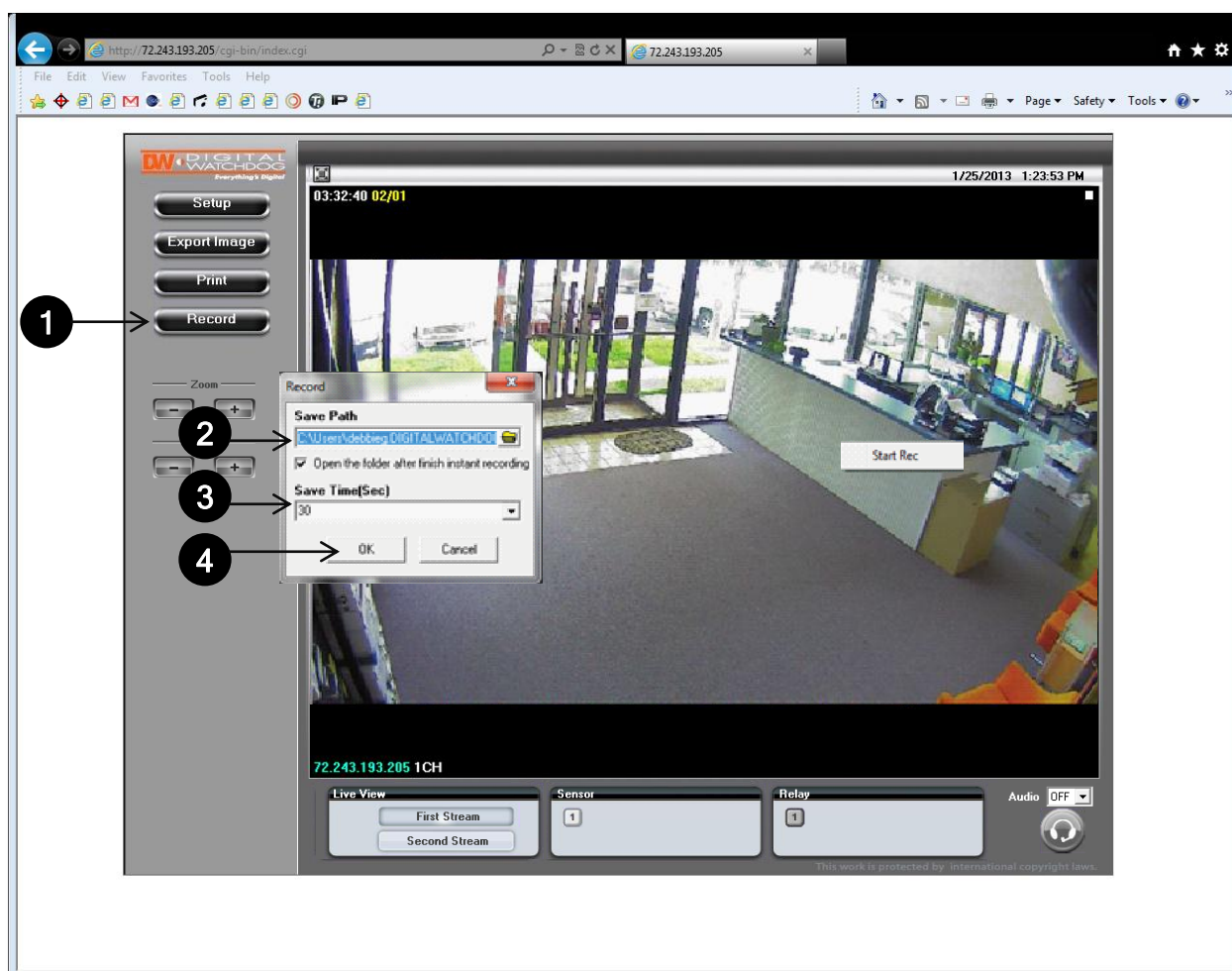
WEBVIEWER*

Display Screen > Record

Instantly record live video to your local drive.

To Setup Instant Recording

1. Select the Record button.
2. Indicate where you want the videos to be saved.
3. Setup the duration of the instant recording. You can record up to 120 seconds of live video.
4. When setup is complete, click OK to save changes or Cancel to cancel any changes.



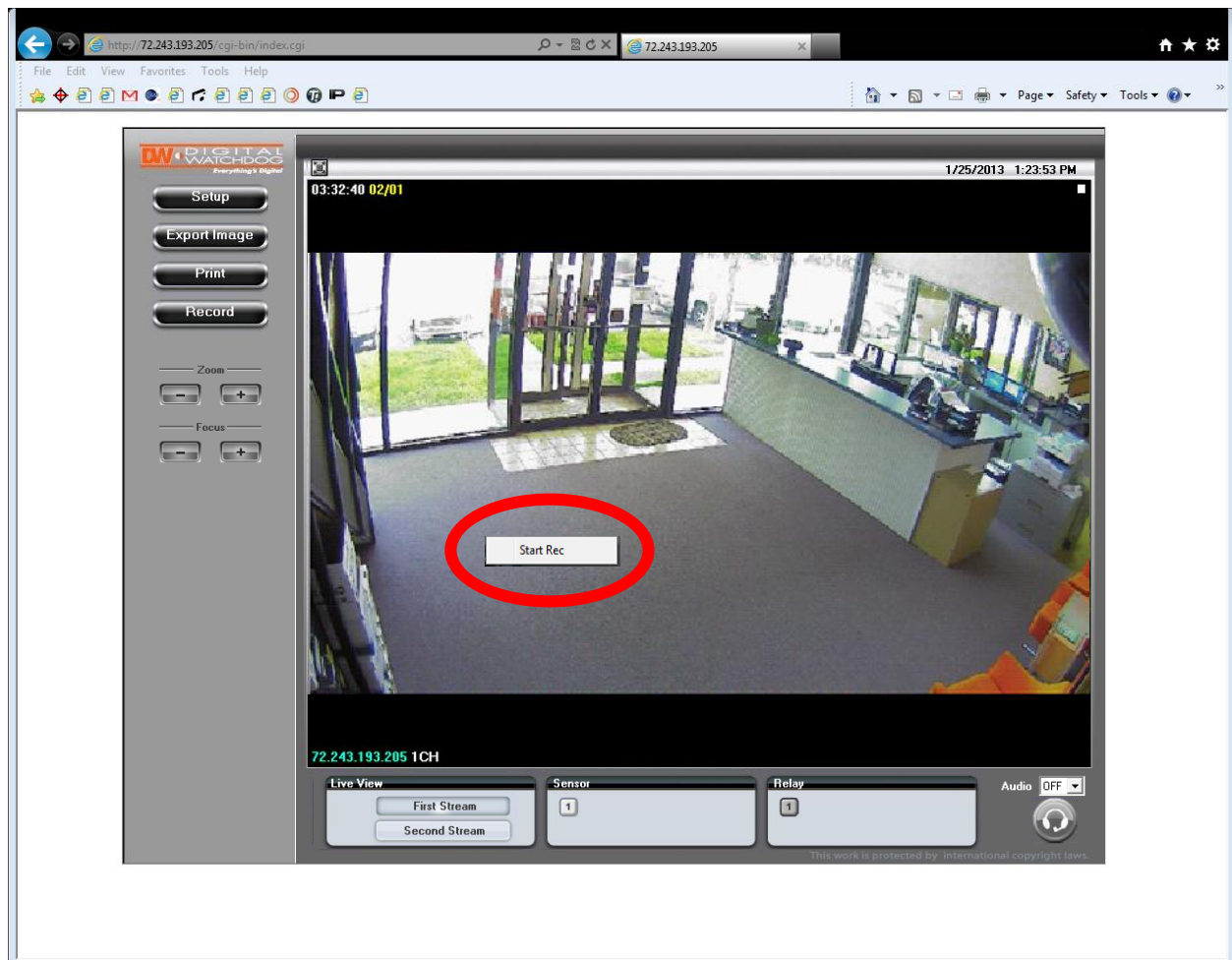
WEBVIEWER*

Display Screen > Record

Instantly record live video to your local drive.

To Start and Stop Instant Recording

- To Start, right-click anywhere on the display screen.
- Select Start Rec. The icon on the top right of the screen will change to **INSTANT**.
- To Stop, right-click anywhere on the display screen.
- Select Stop Rec. The video will be displayed in the designated folder when recording is complete.

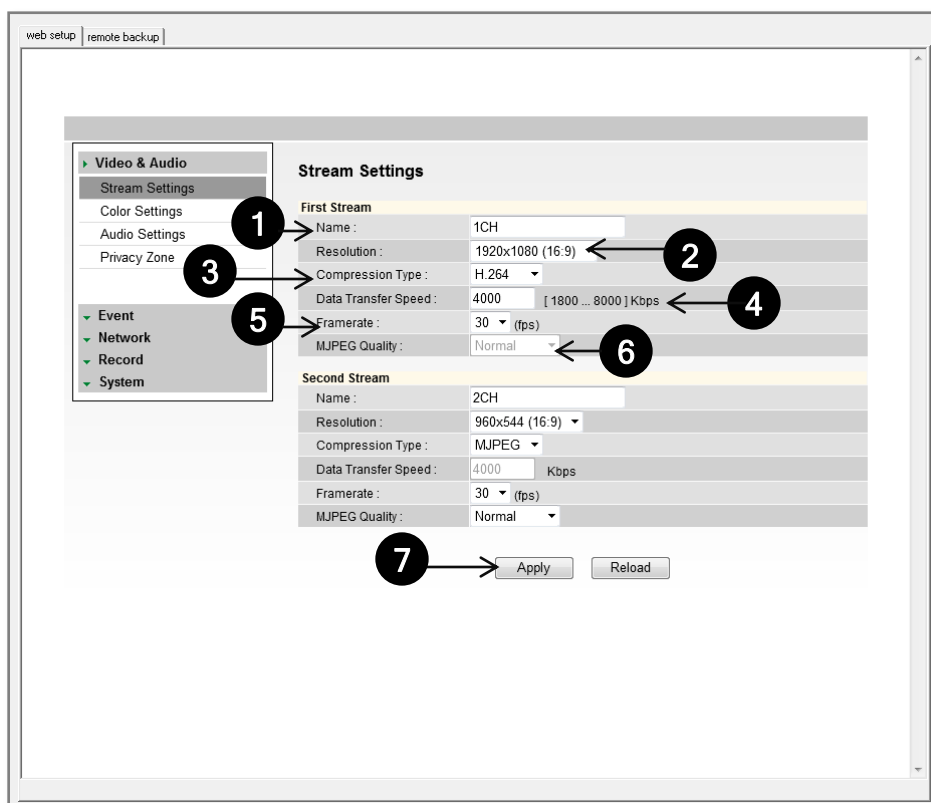


WEBVIEWER*

Display Screen > Setup > Video & Audio > Stream Settings

The Recommended Stream Settings are indicated on the image to the left. This is also the factory default settings.

1. Name: Set a distinguished name to each stream to identify each.
2. Resolution: Set Resolution for each stream. The better the resolution of the video, the more bandwidth it will require to stream images.
3. Compression Type (Codec): Select the type of compression to use when outputting the video.
4. Data Transfer Speed: Set encoding bitrate if H.264 and MPEG4 compression type is selected.
5. Framerate: Select from 0fps to 30fps.
6. MJPEG Quality: Set MJPEG image quality. This is only available when the compression is set to MJPEG. The higher the quality, the more bandwidth will be required to stream the image.
7. Select Apply to save changes.



WEBVIEWER*

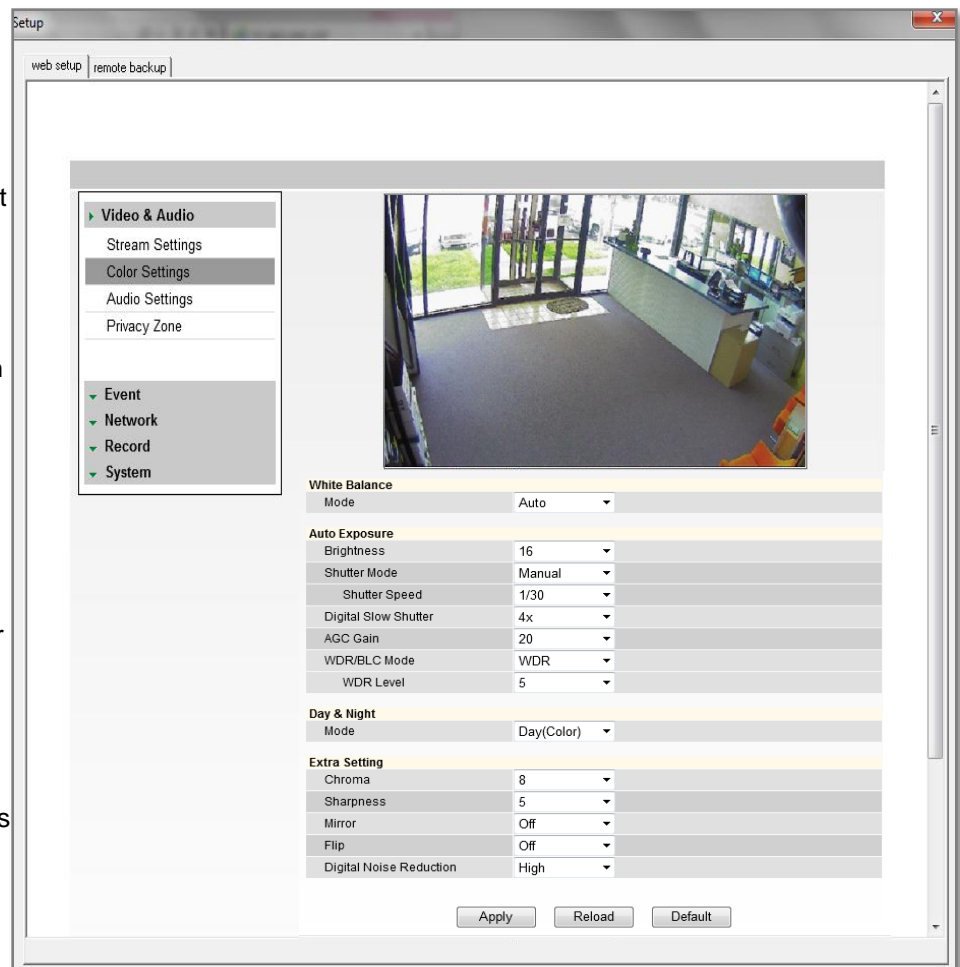
Display Screen > Setup > Video & Audio > Color Settings

Initially, the factory default settings will appear; however, you may customize the Color Settings for your MEGApix camera.

White Balance: Mode - Also known as Color Balance. This gives the camera a reference to “true white.” Select from Auto, Auto_H, Auto_L, Preset, or Manual.

Auto Exposure: Set Brightness, Shutter Mode, Digital Slow Shutter, Shutter Speed, AGC Gain, and BLC Mode.

1. Brightness: Select from 0 (darkest) to 20 (brightest).
2. Shutter Mode: Set the amount of light allowed in the video manually or automatically.
3. Digital Slow Shutter: Recommended in low light conditions. Turn On (2x, 3x, 4x) or Off.
4. Shutter Speed: Select the speed at which the camera's shutter will operate—1/30, 1/60, or 1/120.
5. AGC Gain: Maximum light gain settings in low light conditions. Select from 0 (least light) to 20 (most light).
6. WDR/ BLC Mode: In this menu you can select to apply either Wide Dynamic Range or Backlight Compensation to adjust the image in harsh lighting environments.
7. WDR Level: If WDR is selected, adjust the level of WDR between 0 (no WDR) to 9 (high WDR adjustment). The default value is 5. The higher the WDR level, dark areas in the image will appear brighter, and bright areas will appear darker.
8. Select 'Apply' to save changes, 'Reload' to return to the last saved settings, or 'Default' to return all settings to their factory default values



WEBVIEWER*

Display Screen > Setup > Video & Audio > Color Settings

Initially, the factory default settings will appear; however, you may customize the Color Settings for your MEGApix camera.

Day & Night: Set the mode to Night (B/W), Day (Color), or Auto. If set as Auto, set a desired Color to B/W Level and B/W to Color Level.

1. Switching from Color to B/W: Select from 0~10. The higher the number, the less darker the environment will have to be for the camera to switch from color to B/W.
2. Switching from B/W to Color: This number should always be lower than the number set to color to B/W.

Extra Settings: Set Lens Type, Chroma, Sharpness, Mirror, Flip, and Digital Noise Reduction.

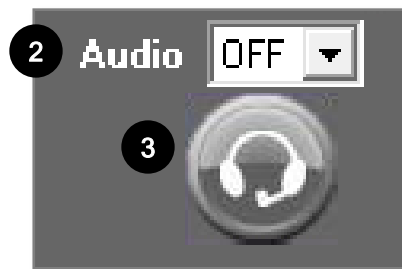
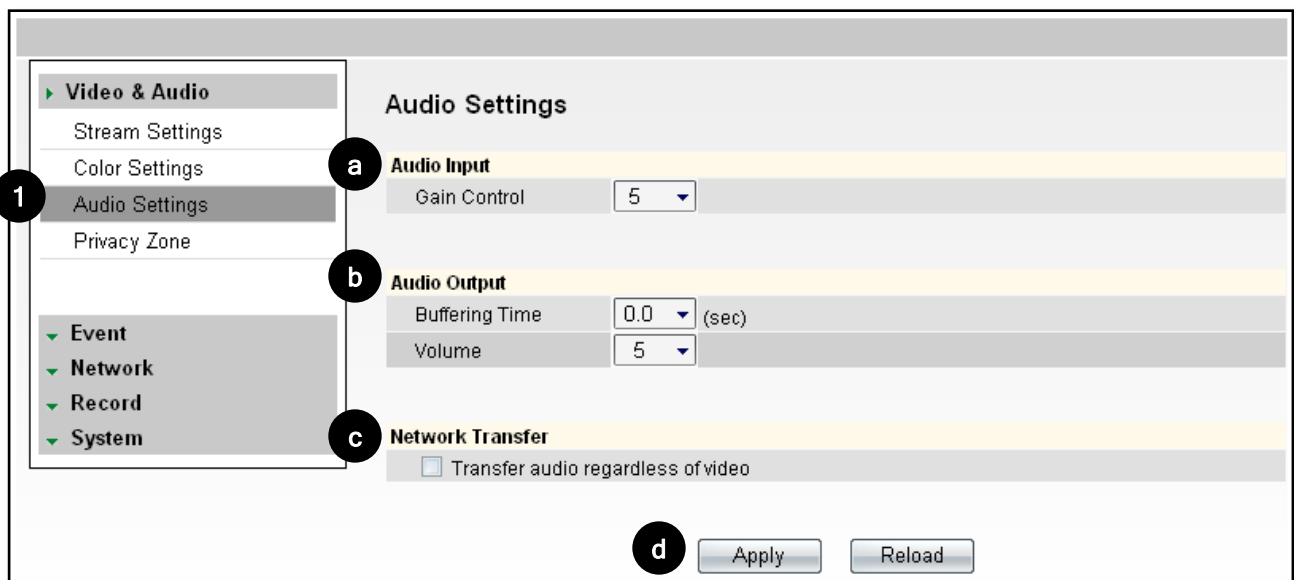
3. Lens Type: Set the camera to an indoor or outdoor lighting environment. Select Manual, DC, or AF.
4. Chroma: Affect the quality of the color in the image. Select from 0~20. The higher the number, the brighter the color in the video.
5. Sharpness: Select sharpness from 0~10 of the image.
6. Mirror/ Flip: Select On or Off to mirror the image from left to right, or flip it upside down.
7. Digital Noise Reduction: Control the level of noise in the image. Select from Off, Low, Middle, or High.
8. Select Apply to save changes.

Day & Night	
Mode	Auto
Switching from Color to B/W	5 [0 ... 10, default 5] 1
Switching from B/W to Color	5 [0 ... 10, default 5] 2
Extra Setting	
Lens Type	Manual 3
Chroma	8 4
Sharpness	5 5
Mirror	Off 6
Flip	Off 6
Digital Noise Reduction	Middle 7
<div> 8 → Apply Reload Default </div>	

WEBVIEWER*

Display Screen > Setup > Video & Audio > Audio

- Connect speaker/microphone wires (not included) to your camera and to a monitoring device (ex.: PC computer).
1. On the Display Screen in your Webviewer, go to Setup, Video & Audio, and finally, Audio. Adjust settings to your preference.
 - a) Audio Input: Set Gain (0-5).
 - b) Audio Output: Set Buffering Time & Volume (0-5).
 - c) Network Transfer: Select Transfer Audio regardless of video.
 - d) Select Apply to save changes.
 2. On the Display Screen, change Audio (in the bottom left corner) from OFF to 1. This will enable you to hear external audio.
 3. To transfer audio to the camera, select the 'headset' button beneath Audio.



WEBVIEWER*

Display Screen > Setup > Video & Audio > Privacy Zone

The MB421TIR MEGApix Series offers up to 30 privacy zone settings. To set Privacy Zones:

1. Change Mode to On. Click Apply. By default, all 30 privacy zones will be displayed.
2. Select the color of the zone and transparency of the color from the drop down list. Click Apply.
3. Select the zones you want to view and/or modify. Use the Show All button to display all 30 privacy zones, or Hide All to deselect them and select only a single privacy zone. After selecting the privacy zone you want to modify, click Apply.
4. Set the zone's size and location, using the grid lines. In Local Settings, select the zone you want to modify, then select the position: Horizontal Position: 0~57; Vertical Position: 0~31; Width: 0~60; Height: 0~34.
Click Apply after each modification to verify the size and position match your requirements.

Global Settings

Mode	Off	Apply
Color	Cyan	
Transparency	4	
Display Zone	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 6 <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 8 <input checked="" type="checkbox"/> 9 <input checked="" type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12 <input checked="" type="checkbox"/> 13 <input checked="" type="checkbox"/> 14 <input checked="" type="checkbox"/> 15 <input checked="" type="checkbox"/> 16 <input checked="" type="checkbox"/> 17 <input checked="" type="checkbox"/> 18 <input checked="" type="checkbox"/> 19 <input checked="" type="checkbox"/> 20 <input checked="" type="checkbox"/> 21 <input checked="" type="checkbox"/> 22 <input checked="" type="checkbox"/> 23 <input checked="" type="checkbox"/> 24 <input checked="" type="checkbox"/> 25 <input checked="" type="checkbox"/> 26 <input checked="" type="checkbox"/> 27 <input checked="" type="checkbox"/> 28 <input checked="" type="checkbox"/> 29 <input checked="" type="checkbox"/> 30	
<input type="button" value="Show All"/>		

Local Settings

Zone	Zone 1	Apply	
Horizontal Position	12	Vertical Position	2
Width	3	Height	3
<input type="button" value="Reload"/>			

WEBVIEWER*

Display Screen > Setup > Event > Motion Detection

The screenshot shows a web browser window with a navigation menu on the left and a settings panel on the right. The navigation menu includes 'Video & Audio', 'Event', 'Network', 'Record', and 'System'. Under 'Event', 'Motion Detection' is selected. The settings panel is titled 'Motion Detection Settings' and contains the following fields:

- Use Motion:** A checkbox that is checked. Callout 1 points to this checkbox.
- Sensitivity:** A dropdown menu with 'Middle' selected. Callout 2 points to this dropdown.
- Dwell Time:** A text input field with '5' and a unit of 'sec'. Callout 3 points to this field.
- Relay:** A dropdown menu with '1' selected. Callout 4 points to this dropdown.
- Duration:** A text input field with '5' and a unit of 'sec'. Callout 5 points to this field.

At the bottom of the settings panel, there are two buttons: 'Apply' and 'Reload'. Callout 6 points to the 'Apply' button.

The Motion detection feature allows the MEGApix camera to detect motion and trigger an alarm. To set the camera to send e-mail notifications for every motion triggered alarms, see page 50.

1. Check the Use Motion box.
2. Sensitivity: Select from Low, Middle, or High.
3. Dwell Time: When a motion is triggered, the camera can be set to record for a certain period of time. Dwell Time can be set up to 900 seconds.
4. Relay: an alarm out triggered by motion detection. Select None or 1.
5. Duration: determines how long the alarm out will last. Maximum is 900 seconds.
6. Select Apply to save changes.

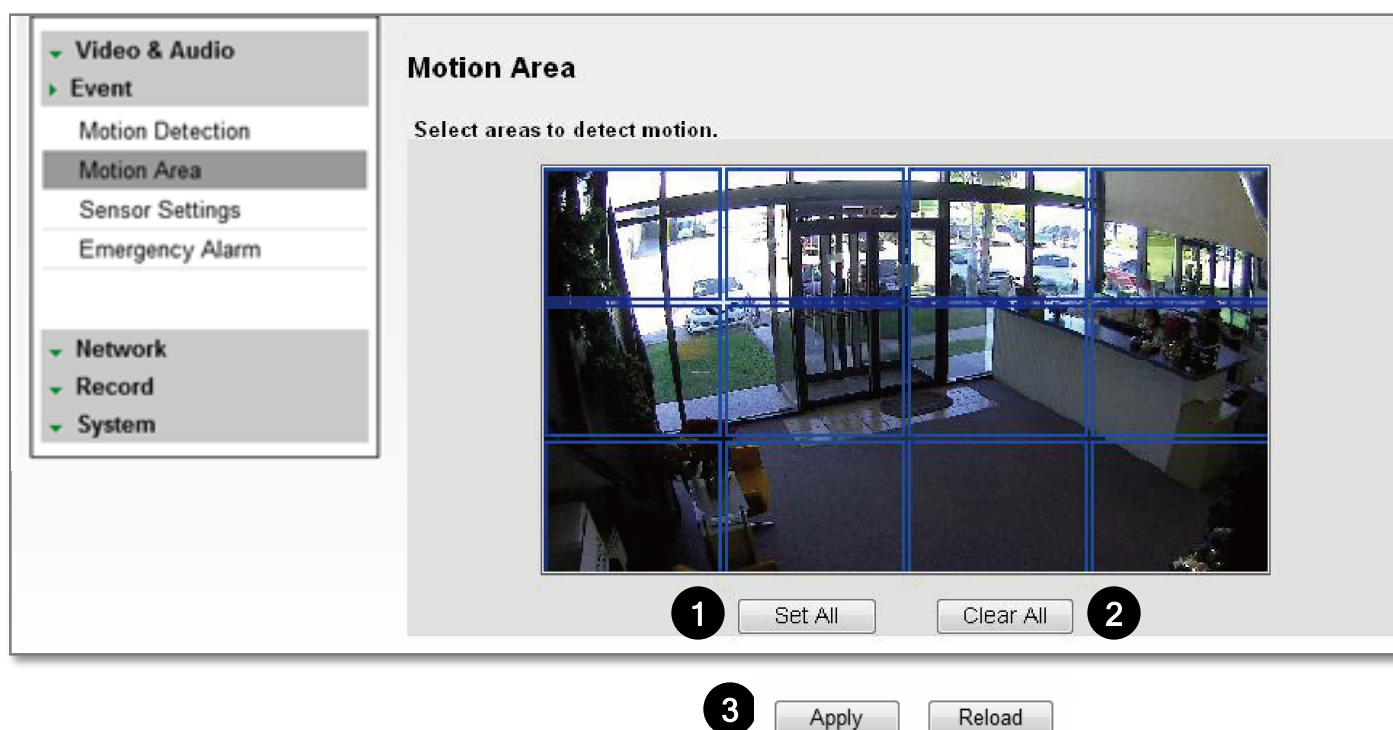
To setup specific areas of the camera's view to motion detection, please see the next page.

WEBVIEWER*

Display Screen > Setup > Event > Motion Area

The Motion detection feature allows the MEGApix camera to detect motion and trigger an alarm. To set the camera to send e-mail notifications for every motion triggered alarms, see page 50.

1. Hold left mouse button and drag the mouse pointer over image to select the motion area, or use Set All button to select the entire screen.
2. Select Clear All to deselect motion areas.
3. Select Apply to save changes.



WEBVIEWER*

Display Screen > Setup > Event > Sensor Settings

To Use Sensor

- Sensor:** Select sensor type(NO/NC) and check sensor number. To use relay out, check relay number and set time to activate.
NO(Normal Open): Sensor is activated when it closes. (Example: Door normally remains open and an alarm is triggered when the door closes.)
NC(Normal Close): Sensor is activated when it opens. (Example: Window normally remains closed and an alarm is triggered when the window is opened.)
- Relay Activity:** To use Relay Activity, select USE and set time to activate.
- Select Apply to save changes.

Sensor Settings

1 **Sensor**

Use	Type	Dwell(sec)	Camera	Relay	Dur(sec)
<input checked="" type="checkbox"/> 1	<input checked="" type="radio"/> NO <input type="radio"/> NC	<input type="text" value="0"/>	None	<input type="text" value="1"/>	<input type="text" value="0"/>

2 **Relay Activity**

Use	Name	Activity Time
<input type="checkbox"/> 1	<input type="text"/>	<input type="text" value="0"/> : <input type="text" value="0"/> ~ <input type="text" value="0"/> : <input type="text" value="0"/>

3

WEBVIEWER*

Display Screen > Setup > Event > Emergency Alarm

Send alarm triggered information to predefined destination (i.e. remote client software).

1. **Site Information:** Site Name, Transmission Settings, and Video Duration for the video that will be sent when motion is detected.
2. **Emergency Alarm Recipient List:** Enter the IP address and the Port for the remote site(s) to which you want to send the video. You can set-up up to five different servers. You must set same port to get EA data.
3. **Event for EA:** Select which type of event will trigger the alarm – Motion or Sensor.
4. Select Apply to save changes.

Video & Audio

Event

Motion Detection

Motion Area

Sensor Settings

Emergency Alarm

Network

Record

System

Emergency Alarm

1

Site Information

Site Name

Transmission Settings

Video Duration

2

Emergency Alarm Recipient List

	IP	Port
Server1		0
Server2		0
Server3		0
Server4		0
Server5		0

3

Event for EA

Camera1

☒ Motion
 ☒ Sensor

4

Apply

Reload

35

WEBVIEWER*

Display Screen > Setup > Network > Network Settings

1. **IP Mode:** Select the type of IP address for the camera.
DHCP: Select this option if you have a DHCP Server in your network and would like your camera to obtain an IP address automatically.
2. **PPPoE:** Select this option when you use WAN service. To use WAN service, you will need a Username and Password from your Internet Service Provider.
3. **Static IP:** Enter IP information on existing field if you decided to give the camera a static (fixed) IP address.
 - IP Address: Enter the static IP Address of the camera
 - Subnet Mask: default is 255.255.255.0
 - Gateway: The gateway is your router's external (public) IP address. It is used when accessing the camera from outside the network. The router will channel your data to the correct destination even if it is on a different subnet mask.

To obtain a static IP Address and network information (Subnet Mask, Gateway, & DNS), please contact your Internet Service Provider or Network Administrator.

4. **DNS:** Enter Primary DNS and Secondary DNS. The Primary Domain Name Server translates web addresses to IP addresses. The Secondary DNS offers a backup option to the primary DNS.
5. **IPv6 Mode:** IPv6 offers a new 128-bit address system. You can use it to use an Automatic address generated by the network, or you can manually enter a Static address.
6. **MAC Address:** Displays the camera's MAC (Mobile Access Control) Address.
7. **PORT:** Displays all the ports necessary for network communication.
8. **Reboot your system** to apply the changes to your camera. To Reboot, select Apply. A dialogue box will appear, select OK. System will automatically restart and may take up to 20 seconds to reboot.

The screenshot shows the 'Network Settings' page in a web browser. On the left is a sidebar menu with categories: Video & Audio, Event, Network (selected), Record, and System. Under 'Network', the sub-items are: Network Settings (selected), Dynamic DNS, Communication Protocol, Access Permission, OnVIF, and RTP/RTSP. The main content area is titled 'Network Settings' and contains the following fields:

- IP Mode:** A section header with a yellow background. It contains three radio buttons: DHCP (selected), PPPoE, and Static IP. A callout '1' points to this section.
- DNS:** A section header with a yellow background. It contains two text input fields: 'Primary DNS' (value: 168.126.63.1) and 'Secondary DNS' (value: 4.2.2.5). A callout '2' points to this section.
- IPv6 Mode:** A section header with a yellow background. It contains three radio buttons: Not Use (selected), Auto, and Static. The 'Auto' and 'Static' options have associated text input fields. A callout '3' points to the 'Static' option.
- MAC Address:** A section header with a yellow background. It contains a text input field with the value '00:1C:A6:01:24:25'. A callout '4' points to this field.
- PORT:** A section header with a yellow background. It contains four text input fields: 'Command Port' (7000), 'Live Port' (7001), '2Way Audio Port' (7002), and 'Web Port' (80). A callout '5' points to this section.
- Apply and Reload buttons:** At the bottom of the form, there are two buttons: 'Apply' and 'Reload'. A callout '6' points to the 'Apply' button.

WEBVIEWER*

Display Screen > Setup > Network > Dynamic DNS

If you do not use a public IP address, DDNS provides you to connect on WAN. DDNS allows you to connect to the MEGApix camera with a URL address instead of an IP address. DDNS automatically redirects traffic to your IP address every time it changes.

1. To use DDNS, select the Use DDNS checkbox.
2. Select one of the DDNS System Names from the drop down list.
3. Enter Username & Password. The Username & Password must be registered at the DDNS site.
4. Enter Host Name.
5. Reboot your system to apply the changes to your camera. To Reboot, select Apply. A dialogue box will appear, select OK. System will automatically restart and may take up to 20 seconds to reboot.

The screenshot shows the 'Dynamic DNS' configuration interface. On the left is a sidebar menu with categories: Video & Audio, Event, Network, Record, and System. Under the 'Network' category, the following options are listed: Network Settings, Dynamic DNS (highlighted), Communication Protocol, Access Permission, OnVIF, and RTP/RTSP. A callout '1' points to 'Dynamic DNS'. The main area is titled 'Dynamic DNS' and contains a section labeled 'DDNS' with a checked 'Use DDNS' checkbox. Below this are four input fields: 'System Name' (containing 'dvr.name', with callout '2'), 'Username' (with callout '3'), 'Password' (with callout '3'), and 'Hostname' (with callout '4'). At the bottom, there are 'Apply' and 'Reload' buttons, with callout '5' pointing to the 'Apply' button.

WEBVIEWER*

Display Screen > Setup > Network > Communication Protocol

Current Protocol displays the current selected protocol.

1. To change the Protocol, select one of the three options—TCP, UDP, or Multicast.
2. If you select Multicast, enter the Multicast IP and Multicast Port.
3. Reboot your system to apply the changes to your camera. To Reboot, select Apply. A dialogue box will appear, select OK. System will automatically restart and may take up to 20 seconds to reboot.

The screenshot shows the 'Communication Protocol' configuration page. On the left is a sidebar menu with categories: Video & Audio, Event, Network (expanded), Record, and System. Under 'Network', the options are Network Settings, Dynamic DNS, Communication Protocol (highlighted), Access Permission, OnVIF, and RTP/RTSP. The main content area is titled 'Communication Protocol' and contains the following fields:

Current Protocol :	TCP
Protocol :	<input checked="" type="radio"/> TCP <input type="radio"/> UDP <input type="radio"/> Multicast
Multicast IP :	<input type="text"/>
Multicast Port :	<input type="text" value="0"/>

Below the fields are two buttons: 'Apply' and 'Reload'. Arrows and numbered circles indicate the steps: 1 points to the Multicast radio button, 2 points to both the Multicast IP and Multicast Port input fields, and 3 points to the 'Apply' button.

WEBVIEWER*

Display Screen > Setup > Network > Access Permission

Use the Access Permission page to allow or block specific IP addresses to connect to the camera.

1. Select Allow All to allow anyone to connect to this camera. If Allow All is selected, the Allowed IP List and Blocked IP List will be ignored.
2. To allow only a specific list of IP addresses to connect to this camera, select Allow. Enter an IP Address and click the Add button.
3. To block a specific list of IP addresses from connecting to this camera, select Block. Enter an IP Address and click the Add button.

The screenshot shows the 'Camera Access Permission' web interface. On the left is a sidebar menu with categories: Video & Audio, Event, Network, Record, and System. Under 'Network', the options are Network Settings, Dynamic DNS, Communication Protocol, Access Permission (highlighted), OnVIF, and RTP/RTSP. The main content area is titled 'Camera Access Permission' and includes the instruction: 'Allow and block specific IP addresses that can access your IP cameras.' There are three numbered callouts: 1 points to the 'Allow All' radio button, 2 points to the 'Allow' radio button, and 3 points to the 'Block' radio button. Below the 'Allow' section, there is an 'IP' input field, 'Add' and 'Delete' buttons, and a list area labeled 'Allowed IP List'. Below the 'Block' section, there is another 'IP' input field, 'Add' and 'Delete' buttons, and a list area labeled 'Blocked IP List'. At the bottom of the interface are 'Apply' and 'Reload' buttons.

WEBVIEWER*

Display Screen > Setup > Network > OnVIF

OnVIF is the Open Network Video Interface Forum.

1. To use OnVIF, check Enable.
2. Set the Service Port to "8032."
3. Select On or Off for WS-Security.
4. Select desired Options from the list.
5. Select On or Off for WS-Discovery (Web Services Dynamic Discovery)
6. Select On or Off to Verify Service Address.
7. Select Apply to save changes.

The screenshot shows the 'ONVIF Service' configuration page. On the left is a sidebar menu with categories: Video & Audio, Event, Network, Record, and System. Under the 'Network' category, the following options are listed: Network Settings, Dynamic DNS, Communication Protocol, Access Permission, OnVIF (highlighted), and RTP/RTSP. The main content area is titled 'ONVIF Service' and contains the following settings:

- ONVIF**: ☒ Enable (Callout 1 points to this checkbox)
- Support Stream**: Dual Stream (Callout 2 points to the dropdown menu)
- Service Port**: 8032 (Callout 2 points to the text input)
- Authentication**: ☒ On ☐ Off (Callout 3 points to the 'On' radio button)
- Options**:
 - ☒ Device Service
 - ☒ Imaging Service
 - ☒ Video Analytics Service
 - ☒ Media Service
 - ☒ Event Service
 - ☒ PTZ Service(Callout 4 points to the 'Media Service' checkbox)
- WS-Discovery**: ☒ On ☐ Off (Callout 5 points to the 'On' radio button)
- Verify Service Address**: ☒ On ☐ Off (Callout 6 points to the 'On' radio button)

At the bottom of the page are two buttons: 'Apply' (Callout 7 points to this button) and 'Reload'.

WEBVIEWER*

Display Screen > Setup > Network > RTP/ RTSP

RTP and RTSP Ports Configuration and Management

Realtime Transport Protocol (RTP) and Realtime Streaming Protocol (RTSP) are data transfer protocol for delivering live and stored media to one or more clients at the same time. These protocols allow software to access the first and second stream directly, by assigning each stream its own ports. RTP and RTSP are used for integration and communication between the cameras and other software.

To use RTP/ RTSP:

1. Check the box to enable authentication on RTSP
2. If necessary, modify the ports for the first and second stream.
3. Click 'Apply' so save all changes or 'Reload' to view the last saved settings.

The screenshot shows the 'RTP/RTSP Configuration' page. On the left is a sidebar menu with categories: Video & Audio, Event, Network, Record, and System. The 'Network' category is expanded, showing options like Network Settings, Dynamic DNS, Communication Protocol, Access Permission, OnVIF, and RTP/RTSP. A callout '1' points to the 'RTP/RTSP' option. The main content area is titled 'RTP/RTSP Configuration' and contains a section 'RTP/RTSP' with a checked checkbox 'Use authentication on RTSP'. Below this are two sections: 'First Stream' and 'Second Stream'. Each has two input fields: 'RTSP Port' and 'RTSP over HTTP Port'. Callout '2' points to these input fields. At the bottom, there are 'Apply' and 'Reload' buttons. Callout '3' points to the 'Apply' button.

RTP/RTSP Configuration	
RTP/RTSP	
<input checked="" type="checkbox"/> Use authentication on RTSP	
First Stream	
RTSP Port :	554
RTSP over HTTP Port :	8080
Second Stream	
RTSP Port :	8554
RTSP over HTTP Port :	8081
Buttons	
Apply	Reload

WEBVIEWER*

Display Screen > Setup > Record > Storage Device

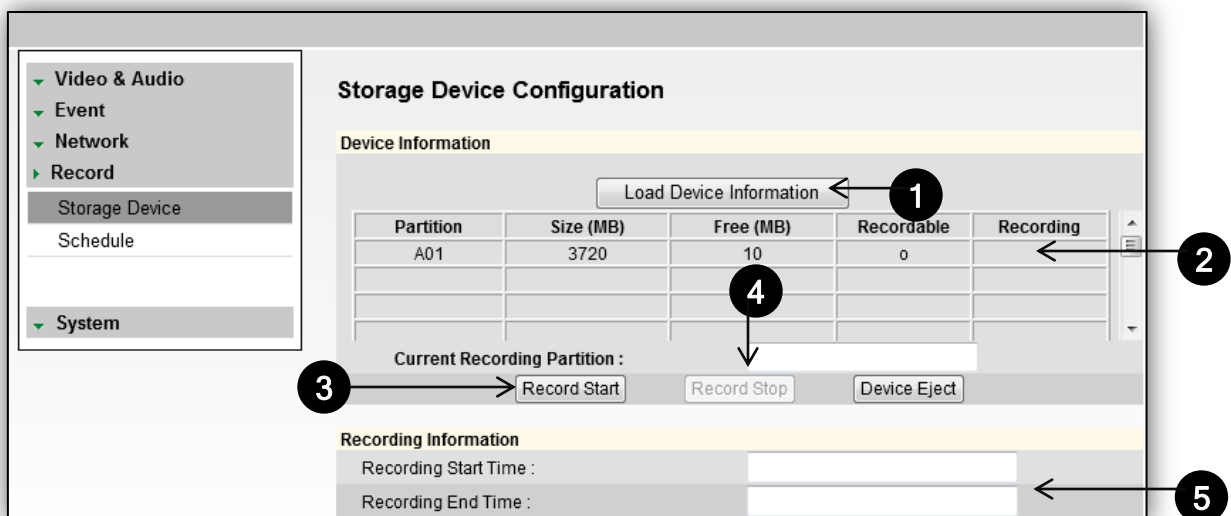
Device Information

1. Click the icon Load Device Information to find the SD card connected to the camera.
2. The system will display all storage devices currently connected to the camera.
3. To activate the SD card to start recording, select Record Start.
4. To stop the SD card's recording, select Record Stop.

Recording Information

5. This section displays the first and last recorded data available on the selected SD card.

SD card records video from the second stream. To modify recording quality, please see page 30.



IMPORTANT: The SD card recording function operates as an emergency recording, designed to record video from the camera only when there is a network loss. If you connect to the camera via the Webviewer or an NVR, the SD card recording will stop.

WEBVIEWER*

Display Screen > Setup > Record > Schedule

The recording schedule applies to the SD card local recording. When the camera detects a network loss, it will start recording backup video to the SD card based on the schedule setup.

Video Schedule

1. Set recording schedule daily or weekly. Default is daily setting. It only saves single day's setting without changing to 'Multi Day Mode.'
2. Select the type of recording: Continuous (Cyan), Motion (Yellow) & Sensor (Red) by clicking on the corresponding button.
3. Drag your mouse over the hours you want to set for motion recording. The recording mode will be applied to the hours you selected when you release the mouse's right-click.
4. To remove scheduled recording for a specific day, select 'No Record' and press the box for which hours you want the recording removed. The box will now appear white.
5. Select Apply to save changes, or Reload to view the last saved settings.

The screenshot shows the 'Recording Schedule' configuration page. On the left is a sidebar menu with 'Record' selected. The main area is titled 'Recording Schedule' and contains a 'Video Schedule' section. This section has a row of checkboxes for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and a 'Single Selection' dropdown. Below this is a 24-hour grid (00-23) where each hour is represented by a colored box. A callout '1' points to the 'Single Selection' dropdown. Below the grid are four buttons: 'Continuous' (cyan), 'Motion' (yellow), 'Sensor' (red), and 'No Record' (white). A callout '2' points to the 'No Record' button. Below these buttons is a 'Recording Control' section with three rows: 'Pre-Alarm Time' (5 sec), 'Motion Post-Alarm Time' (5 sec), and 'Sensor Post-Alarm Time' (5 sec). Below this are two checkboxes: 'Overwrite' and 'Key Frame Only'. At the bottom are 'Apply' and 'Reload' buttons. A callout '3' points to the 'Continuous' button, a callout '4' points to the 'Schedule' item in the sidebar, a callout '5' points to the 'Apply' button, and a callout '6' points to the 'Apply' button.

WEBVIEWER*

Display Screen > Setup > Record > Schedule

The recording schedule applies to the SD card local recording. When the camera detects a network loss, it will start recording backup video to the SD card based on the schedule setup.

Recording Control

5. **Pre-Alarm Time:** Save previous image of event for duration of time.
6. **Motion Post-Alarm Time:** Save images after motion events for duration of time.
7. **Sensor Post-Alarm Time:** Save images after sensor events for duration of time.
8. **Overwrite:** If selected, once the SD card is full, new video will be recorded over older data.
9. **Key Frame Only:** If selected, the SD card will record only Start and End Key Frame, the main frames in the series. This option is recommended when you have limited storage space.
10. Select Apply to save changes.

The screenshot shows the 'Recording Schedule' and 'Recording Control' sections of a web interface. On the left is a sidebar menu with 'Record' selected. The 'Recording Schedule' section includes a 'Video Schedule' table with days of the week and 24-hour slots, and four recording mode buttons: 'Continuous' (highlighted), 'Motion', 'Sensor', and 'No Record'. The 'Recording Control' section has three time input fields (Pre-Alarm Time, Motion Post-Alarm Time, and Sensor Post-Alarm Time), each set to 5 seconds. Below these are checkboxes for 'Overwrite' and 'Key Frame Only', both of which are checked. At the bottom are 'Apply' and 'Reload' buttons. Numbered callouts 5 through 10 point to specific elements: 5 points to the Pre-Alarm Time input, 6 to the Motion Post-Alarm Time input, 7 to the Sensor Post-Alarm Time input, 8 to the Overwrite checkbox, 9 to the Key Frame Only checkbox, and 10 to the Apply button.

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Single Selection																
All	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Recording Control

Pre-Alarm Time: 5 sec (5)

Motion Post-Alarm Time: 5 sec (6)

Sensor Post-Alarm Time: 5 sec (7)

(8) ☒ Overwrite ☒ Key Frame Only (9)

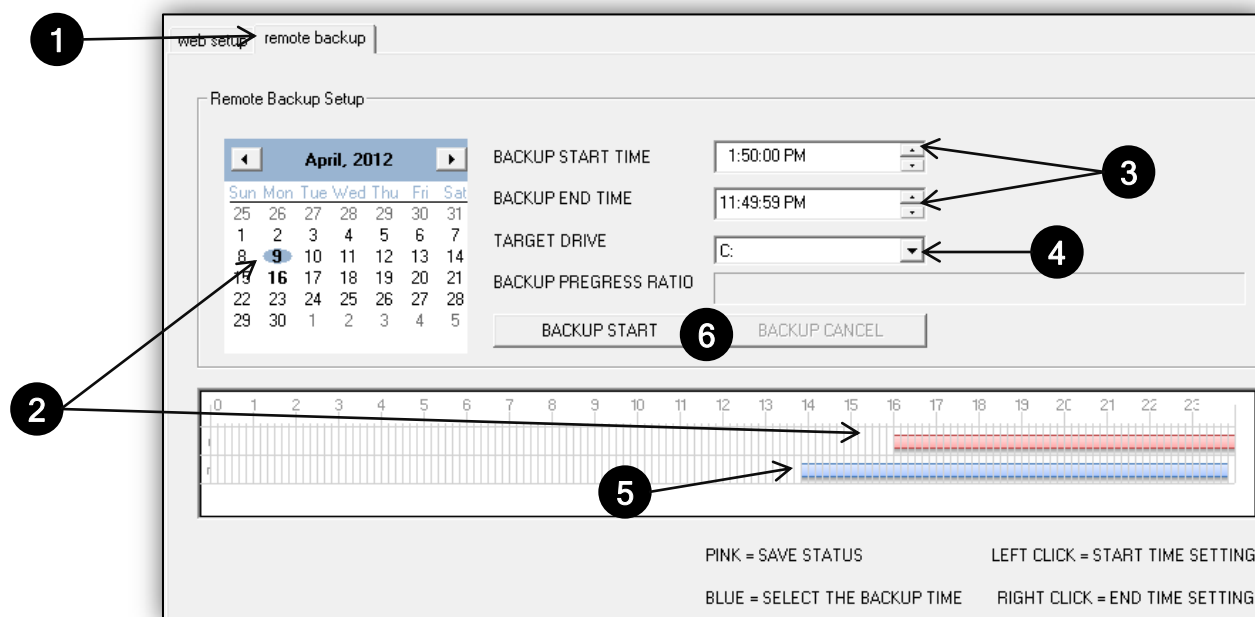
(10)

WEBVIEWER*

Display Screen > Setup > Remote Backup Tab

The MB421TIR MEGApix Series allows you to backup your SD card locally to your computer without the need to remove it from the camera.

1. Go to the Remote Backup Tab in the camera's Setup menu.
2. On the calendar, select the date for remote backup.
 - a. Days with recorded data will be indicated in BOLD.
 - b. Hours with recorded data on them will be indicated by the pink line in the time bar.
3. Select the Backup Start Time and Backup End Time.
4. Select the Target Drive. The Target Drive is where the remote backup will be saved.
5. You can also use the interactive time bar.
 - a. Right-click on the time you want to set as Start Time.
 - b. Left-click on the time you want to set as End Time.
 - c. The time frame you have selected will appear in BLUE.
6. Select Backup Start. To cancel a backup in progress, select Backup Cancel.



WEBVIEWER*

Display Screen > Setup > System > Upgrade

Upgrade the MEGApix camera with an upgrade file.

1. **System Version:** Shows the current version of the camera.
2. **Manual Upgrade:** To upgrade system firmware, you have to contact manufacturer and get the upgrade file first. Go to www.Digital-Watchdog.com and select Support tab.
 - a. Browse file and select the file.
 - b. Press Upgrade button. A dialogue box will appear. Select OK. System will automatically reboot.

The screenshot displays the 'System Management' section of the WebViewer interface. On the left is a sidebar menu with options: Video & Audio, Event, Network, Record, System, System Management (selected), Date&Time, Email Notification, User Access, System Information, and Logs View. The main content area is titled 'System Management' and contains three sections: 'System Version', 'Manual Upgrade', and 'FTP Upgrade'. The 'System Version' section shows Camera Firmware: 4.3, Kernel Version: 1.0.0.0, and Server Version: 1.1.0.1. The 'Manual Upgrade' section has fields for Kernel Upgrade and Server Upgrade, each with a 'Browse...' button and an 'Upgrade' button. The 'FTP Upgrade' section has fields for Server Address (ftp.dwcc.tv), Port (21), User ID (md421d), Password (masked with dots), and Directory (/FTP/firmware_MD421D). It also includes 'Check Upgrade', 'Apply', and 'Reload' buttons. At the bottom, there is a 'Factory Default' section with a 'Mode' dropdown set to 'General' and a 'Run' button. A 'System Reboot' button is located at the very bottom of the interface.

System Management	
System Version	
Camera Firmware :	4.3
Kernel Version :	1.0.0.0
Server Version :	1.1.0.1
Manual Upgrade	
Kernel Upgrade :	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Upgrade"/>
Server Upgrade :	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Upgrade"/>
Upgrade Status :	<input type="text"/>
FTP Upgrade	
Server Address :	<input type="text" value="ftp.dwcc.tv"/>
Port :	<input type="text" value="21"/>
User ID :	<input type="text" value="md421d"/>
Password :	<input type="password" value="....."/>
Directory :	<input type="text" value="/FTP/firmware_MD421D"/>
Action :	<input type="button" value="Check Upgrade"/> <input type="button" value="Apply"/> <input type="button" value="Reload"/>
Status :	<input type="text"/>
Factory Default	
Mode	<input checked="" type="radio"/> General <input type="radio"/> Full <input type="button" value="Run"/>

WEBVIEWER*

Display Screen > Setup > System > Upgrade

Upgrade the MEGApix camera with an upgrade file.

3. FTP Upgrade:

- Server Address: FTP Server IP address
- Port: Default is 21
- User ID: FTP Server Log in ID
- Password: FTP Server Log in Password
- Directory: Upgrade File Path
- Action: Select Check Upgrade to display the Upgrade File list
- Status: Display progress of the Upgrade
- If camera detects an upgrade, a dialogue box will appear. Select OK. System will automatically reboot.

Video & Audio

Event

Network

Record

System

System Management

Date&Time

Email Notification

User Access

System Information

Logs View

System Management

System Version

Camera Firmware :	4.3
Kernel Version :	1.0.0.0
Server Version :	1.1.0.1

Manual Upgrade

Kernel Upgrade :	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="Upgrade"/>
Server Upgrade :	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="Upgrade"/>
Upgrade Status :	<input type="text"/>		

FTP Upgrade

Server Address :	<input type="text" value="ftp.dwcc.tv"/>		
Port :	<input type="text" value="21"/>		
User ID :	<input type="text" value="md421d"/>		
Password :	<input type="password" value="....."/>		
Directory :	<input type="text" value="/FTP/firmware_MD421D"/>		
Action :	<input type="button" value="Check Upgrade"/>	<input type="button" value="Apply"/>	<input type="button" value="Reload"/>
Status :	<input type="text"/>		

Factory Default

Mode	<input checked="" type="radio"/> General	<input type="radio"/> Full	<input type="button" value="Run"/>
------	--	----------------------------	------------------------------------

WEBVIEWER*

Display Screen > Setup > System > Upgrade

Upgrade the MEGApix camera with an upgrade file.

4. **Factory Default:** You can reset the camera to its original factory settings.
Selecting the 'General' option will reset the camera to factory default on all settings except for the IP and Network configuration.
Selecting the 'Full' will reset ALL of the camera's setting, including the network configurations.

System Management

System Version

Camera Firmware :	4.3
Kernel Version :	1.0.0.0
Server Version :	1.1.0.1

Manual Upgrade

Kernel Upgrade :	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="Upgrade"/>
Server Upgrade :	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="Upgrade"/>
Upgrade Status :	<input type="text"/>		

FTP Upgrade

Server Address :	<input type="text" value="ftp.dwcc.tv"/>		
Port :	<input type="text" value="21"/>		
User ID :	<input type="text" value="md421d"/>		
Password :	<input type="password" value="....."/>		
Directory :	<input type="text" value="/FTP/firmware_MD421D"/>		
Action :	<input type="button" value="Check Upgrade"/>	<input type="button" value="Apply"/>	<input type="button" value="Reload"/>
Status :	<input type="text"/>		

Factory Default

Mode	<input checked="" type="radio"/> General	<input type="radio"/> Full	<input type="button" value="Run"/>
------	--	----------------------------	------------------------------------

WEBVIEWER*

Display Screen > Setup > System > Date & Time

Set date and time information.

1. Insert the Date and Time. Select the type of Format for your time.
2. To synchronize with the NTP Server, select the option and type the NTP Server Address.
Example: pool.ntp.org.
3. Select your Time Zone.
4. Select Apply to save changes.

Date& Time

Time Mode

☐ Manual

Date : 2013 / 1 / 25

Time : 16 : 22 : 7

Format : 24 HRS

☒ Synchronize with NTP server

NTP Server Address : time.windows.com

Update Status :

Timezone

Timezone : (GMT -05:00) Eastern Time (US & Canada)

☒ Automatically adjust clock for Daylight Saving Time

4 Apply Reload

WEBVIEWER*

Display Screen > Setup > System > E-mail Notification

Send an e-mail notification when an event is triggered.

1. Select Use Event Mail option. Select Event Type.
2. Enter SMTP Server information. Example: smtp.gmail.com.
3. Enter Username and Password.
4. Enter Sender E-mail.
5. Add the E-mail(s) you wish to send the notifications to.
6. Select Apply to save changes.

The screenshot shows the 'Event and Alarm Email Notification' configuration page. On the left is a sidebar menu with options: Video & Audio, Event, Network, Record, and System (highlighted). Under 'System', there are sub-options: System Management, Date&Time, Email Notification (highlighted), User Access, System Information, and Logs View. The main content area is titled 'Event and Alarm Email Notification'. It contains a checkbox labeled 'Use Event Mail' (callout 1). Below it are checkboxes for event types: Sensor, Motion, Relay, Reboot, and Upgrade. The 'Events' label has callout 1 pointing to the 'Use Event Mail' checkbox and callout 2 pointing to the event type checkboxes. Below these are input fields for 'SMTP Server' (callout 2), 'Username' (callout 3), and 'Password' (callout 3). Below these is a 'Sender E-Mail' field (callout 4). Below that is an 'E-Mail List' field (callout 5) with 'Add', 'Modify', and 'Delete' buttons. At the bottom are 'Apply' and 'Reload' buttons. Callout 6 points to the 'Apply' button.

*Email Notifications do not support TSL/SSL option. Notifications are TEXT only.

WEBVIEWER*

Display Screen > Setup > System > User Access Control

To add a new user:

1. Enter Username and Password.
2. Select a Permission type.
 - a) Super: Administrator
 - b) Operator: View and Edit Video and Event Settings Only
 - c) Viewer: View Only
3. Click Add.
4. Select Apply to save changes.

To modify a user, select the user from the User List, and click Modify.

To remove a user, select the user from the User List, and click Remove.

User Access Control

User Registration

Username :

Password :

Permission : ☒ Super ☐ Operator ☐ Viewer

User List

Username	Permission
admin	Super
guest	Viewer

*The maximum number of users who can be added to the User List is twenty.

WEBVIEWER*

Display Screen > Setup > System > System Information

System Information will display all the current camera settings: System Version, Time Information, Network Information, and Stream Information.

You can export a camera's settings to apply to other cameras by using the import/ export buttons on this page.

To Export the settings from the current camera:

Press the export button. The system will generate a '.bin' file with all the cameras settings in your Internet Explorer 'Downloads' page.

To import settings from a different camera

Press the Browse button and locate the '.bin' file you have imported from a different camera. Select the 'Import' button. The system will update the current camera's settings with all the imported information.

The progress bar will display the import process.

System Information

Configuration Import/Export

Configuration Export

Configuration Import

Status

☒ **System Version**

Camera Firmware	4.3
Kernel Version	1.0.0.0
Server Version	1.1.0.1

☐ **Time Information**

☒ **Network Information**

IPv4 Mode	Static (72.243.193.200)
DNS	168.126.63.1 4.2.2.5
IPv6 Mode	Not Use
MAC Address	00:10:A6:01:21:8E
Port	
Command	7000
Live	7001
Web	80
Dynamic DNS	Not Use
Communication Protocol	TCP

☐ **Stream Information**

☒ **Color Information**

White Balance	Auto
Brightness	16
Shutter Mode	Manual
Digital Slow Shutter	4x
Shutter Speed	1/30
AGC Gain	20
WDR/BLC Mode	Off
Day & Night	Day(Color)
Chroma	8
Sharpness	5
Mirror	Off
Flip	Off
Digital Noise Reduction	High

☐ **Audio Information**

☒ **Motion Detection Information**

Use	Use
Sensitivity	Middle
Dwell Time	5 sec
Relay	None
Duration	5 sec

☐ **Sensor Information**

WEBVIEWER*

Display Screen > Setup > System > Logs View

User can view detailed logs for system and/or events triggered and recorded in the camera.

1. To view, select the type of report you want to view: System, Event, or System & Event.
2. Select View.
3. The system will generate a report up to 140,000 bits of data.
 - For events to record, make sure the camera is set to record when an event, like motion detection, is triggered. See page 35 for information on how to set motion detection for the MEGApix camera.

Logs View

Logs

Mode : ☒ System ☒ Event

<EVTINFO>	2013/01/25 16:38:40	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:38:35	Camera1 Motion On
<EVTINFO>	2013/01/25 16:38:25	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:38:20	Camera1 Motion On
<EVTINFO>	2013/01/25 16:37:56	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:37:51	Camera1 Motion On
<EVTINFO>	2013/01/25 16:37:41	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:37:36	Camera1 Motion On
<EVTINFO>	2013/01/25 16:37:26	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:37:21	Camera1 Motion On
<EVTINFO>	2013/01/25 16:36:57	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:36:52	Camera1 Motion On
<EVTINFO>	2013/01/25 16:36:27	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:36:22	Camera1 Motion On
<EVTINFO>	2013/01/25 16:35:58	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:35:53	Camera1 Motion On
<EVTINFO>	2013/01/25 16:35:43	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:35:38	Camera1 Motion On
<EVTINFO>	2013/01/25 16:35:14	Camera1 Motion Off
<EVTINFO>	2013/01/25 16:35:09	Camera1 Motion On

SPECIFICATIONS*

IMAGE

Image Sensor	½.8" CMOS Sensor
Total Pixels	2016 (H) x 1108 (V)
Minimum Scene Illumination	0.0 Lux
Lens	3.5~16mm Remote Auto Focus [MB421TIR] 6~50mm Remote Auto Focus Lens [MB421TIR650]
Angle of View	Horizontal: 55.4 (wide) - 2.9 (tele)

AUDIO

Compression and Sampling Rate	G.711 (8KHz)
Input/ Output	1 Line IN, 1 Line OUT Mono

OPERATIONAL

Brightness	0~20
Shutter Mode	Auto/ Manual
Digital Slow Shutter	Off/ 2X/ 3X/ 4X
DNR (Digital Noise Reduction)	Off/ Low/ Middle/ High
Auto Gain Control	0~20
BLC (Back Light Compensation)	Off/ On
WDR (Wide Dynamic Range)	Off/ On/ Level 0~9
Day and Night	Auto/ Day (Color)/ Night (B/W)
Lens Mode	Manual/ DC
Chroma (Color Quality: Hue, & Saturation Settings)	0~20
Sharpness	0~10
Mirror & Flip	Off/ On
Alarm Notifications	Notifications via E-mail
Privacy Zone	Off/ On (30 Programmable Zones)
Motion Detection: Sensitivity	Low/ Middle/ High
Sensor	1 Input/ 1 Output Built-In
Memory Slot	24 hours recording to Micro SDHC Card (4GB-32GB) *Card not included
Recording Schedule Setup	Continuous/ Motion/ Sensor/ Pre- & Post- Alarm

SPECIFICATIONS*

NETWORK

LAN	802.3 Compliance 10/100 LAN
Video Compression Type	H.264, MPEG4, MJPEG (Super Fine ~ Low)
Resolution	1920X1080 (16:9) ~ 320X240 (4:3)
Frame Rate	Up to 30fps at All Resolutions
Stream Capability	Dual-Stream at Different Rates and Resolutions
IP	IPv4, IPv6
Protocol	TCP/IP, HTTP, DHCP, PPPoE, ICMP, ARP, RARP, RTSP, NTP, UDP, Multicast
Maximum User Access	5 Users
Memory Slot	Local SDHC Card Backup
ONVIF Conformance	Yes
Web Viewer	Supported OS: Windows XP, Windows Vista, Windows 7, MAC OS Supported Browser: Internet Explorer, Google Chrome, Mozilla Firefox, Safari
Video Management Software	DW Spectrum/ Pivot/ NxMS

ENVIRONMENTAL

Operating Temperature/ Humidity	-10°C ~ 55°C (14°F ~ 131°F)
Operating Humidity	Less than 90% (Non-Condensing)
Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F)
IP Rating	IP66 Certified [Protects against dust and high pressure water]
Other Specifications	CE, FCC, RoHS

Electrical

Power Requirement	DC 12V, PoE (IEEE802.3af Class 3)
Power Consumption	7.5W, 600mA/ LED On: 15.5W, 1200mA

Mechanical

Housing Material	Aluminum Housing
Dimensions	293.2 x 96.7 mm (11.5 x 3.8 in)
Weight	1.52 lbs

TROUBLESHOOTING

Before sending your camera for repair, check the following or contact your technical specialist.

I can't find my MEGApix camera on the IP Finder software.

- Is the PoE cable connected properly?
Make sure cable is tightly connected at both ends. It should make a “click” sound when connected properly.
Make sure cable is intact and there are no cuts or exposed wires.
- If Yes, are the camera's LED lights turned on and blinking?
The camera's LED lights indicate that the camera is powered on. Blinking LED lights indicate that the camera has finished booting up and is transmitting data.
- If Yes, is the internet working properly?
Make sure you can connect to the internet with other devices on the network (ex. your computer). Your internet could be temporarily down.
- If Yes and using a power adaptor, does it meet camera's power requirements?
Power Requirements: DC12V (5.16W, 430mA), PoE Ports (Class 3, less than 7W)
- If Yes, if using PoE Switch, is it connected to a proper internet outlet and operating properly?
Make sure the PoE Switch is connected to a router/modem and the ports that have devices connected to them have a green LED light on.
- If Yes, is the computer on the same network as the MEGApix camera?
Camera and computer should be connected to the same router. Contact your network administrator if you have more than one network available.
- If Yes, try pinging the IP camera's default IP address 192.168.1.123.
From your desktop, go to Start > Programs > Accessories > Command Prompt. Type “ping 192.168.1.123” and press Enter. If you get the message “Request timed out,” camera is not connected. Camera is connected if you get data.
- If Yes, try connecting the camera to a differ port in the PoE Switch.
That specific Switch Port may be damaged or currently not working properly.
- If Yes, try resetting the camera to default settings.
Press the reset button on the control board and hold for 5 seconds. The camera will return to factory default with default IP address 192.168.1.123. If your network supports DHCP, the camera will be found using the IP Finder software with an IP address that matches your network's requirements.

TROUBLESHOOTING

Before sending your camera for repair, check the following or contact your technical specialist.

I can't connect to my MEGApix camera through the Web Browser

- Are the camera's LEDs on and blinking?
The camera's LED indicates the camera is On. If the LED blinks, the camera has finished booting up and is transmitting data.
- If Yes, is the internet working properly?
Make sure you connect to the internet with other devices on the network (ex. your computer). Your internet could be temporarily down.
- If Yes, is the computer on the same network as the IP camera?
Camera and computer should be connected on the same router. Contact your network administrator if you have more than one network available.
- If Yes, try pinging the MEGApix camera's IP address as it appears on the IP finder.
From your desktop, go to Start > Programs > Accessories > Command Prompt. Type "ping" followed by the camera's IP address; then, press Enter. If you get the message "Request timed out," camera is not connected. If you get data back, that means the camera is connected.
- If Yes, try connecting the camera to a different port in the PoE Switch.
That specific Switch Port may be damaged or currently not operating properly.
- If Yes, check your security settings on your internet browser.
Try adding the camera's IP address to the trusted sites list in your Internet Options. *Setup may vary depending on the browser you use.

TROUBLESHOOTING

Before sending your camera for repair, check the following or contact your technical specialist.

I can't see the live video of my MEGApix camera.

- Are you trying to view the camera's video from an Internet Explorer browser?
Make sure you have the minimum PC requirements to view the MEGApix camera. *See below for more information.
- If Yes, did you install ActiveX files?
When you connect to your MEGApix camera for the first time, your browser will ask you to install ActiveX. Make sure your Web Browser's security settings do not block pop-up windows and allows ActiveX files to be installed and used. *Setup may vary depending on the browser you use.
- If Yes, make sure nothing is blocking the camera's lens.
- Are you trying to view the camera's video from a different browser other than Internet Explorer (ex. Google Chrome, Mozilla Firefox, MAC Safari)?
- If Yes, at least one of the streams of the camera must have Codec (Compression Type) set to MJPEG.
Go to the camera's setup menu. Select Stream Settings. Select one of the streams and change its Codec to MJPEG. Click Apply to save changes. Go back to live screen and at the bottom of the screen, select the stream you have set to MJPEG. Live video will start streaming to your web browser.

Web Viewer Specifications

- Minimum Requirements for PC

CPU	Intel P4 2.0GHz Dual Core
RAM	More than 1GB
HDD	200 GB Required for Saving Clip Image
OS	Microsoft Windows XP or Higher
Resolution	Higher than 1024X768

TROUBLESHOOTING

Before sending your camera for repair, check the following or contact your technical specialist.

Setting the IP Address for your PC

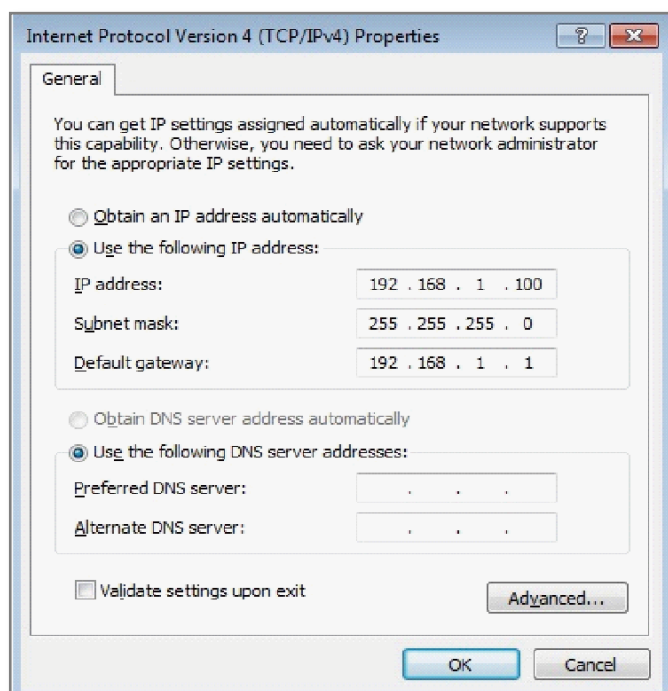
Dynamic Host Configuration Protocol (DHCP) is the default setting for the camera.

If the MEGApix camera is connected to a DHCP network and the camera's IP Configuration Mode is set to DHCP, the server will automatically assign an IP address to the camera. If the camera is using DHCP, the default IP address will be 192.168.1.123, and the default subnet mask will be 255.255.255.0.

The MEGApix camera can also connect to the web viewer using a static IP address. This will allow you to set your own IP address manually.

Setup the Network Protocol on your PC.

1. Go to Network icon on your PC.
2. Right-click and select Properties.
3. Double-click Local Area Connection.
4. Click Properties.
5. Double-click Internet Protocol Version.
6. Select "Obtain an IP address automatically" to set the computer to a dynamic IP address, or select "Use the following IP address" to set the computer to a static IP address.
7. If the option "Use the following IP address" has been selected, setup the IP address as 192.168.1.XXX. The last three digits should be a number between 1 and 254.



WARRANTY INFORMATION*

Digital Watchdog (referred to as “the Warrantor”) warrants the Camera against defects in materials or workmanships as follows:

Labor: For the initial two (2) years, one (1) year for IR LED, from the date of original purchase if the camera is determined to be defective, the Warrantor will repair or replace the unit with new or refurbished product at its option, at no charge.

Parts: In addition, the Warrantor will supply replacement parts for the initial two (2) years, one (1) year for IR LED.

To obtain warranty or out of warranty service, please contact a technical support representative at 1-866-446-3595 Monday through Friday from 8:30AM to 8:00PM EST.

A purchase receipt or other proof of the date of the original purchase is required before warranty service is rendered. This warranty only covers failures due to defects in materials and workmanship which arise during normal use. This warranty does not cover damages which occurs in shipment or failures which are caused by products not supplied by the Warrantor or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustments of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, rental use of the product or service by anyone other than an authorized repair facility or damage that is attributable to acts of God.

LIMITS & EXCLUSIONS*

There are no express warranties except as listed above. The Warrantor will not be liable for incidental or consequential damages (including, without limitation, damage to recording media) resulting from the use of these products, or arising out of any breach of the warranty. All express and implied warranties, including the warranties of merchantability and fitness for particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights from vary from state to state.

If the problem is not handled to your satisfaction, then write to the following address:

Digital Watchdog, Inc.
ATTN: RMA Department
5436 W Crenshaw St
Tampa, FL 33634

Service calls which do not involve defective materials or workmanship as determined by the Warrantor, in its sole discretion, are not covered. Cost of such service calls are the responsibility of the purchaser.





5436 W Crenshaw St, Tampa, FL 33634

PH: 866-446-3595 | FAX: 813-888-9262

www.Digital-Watchdog.com

technicalsupport@dwcc.tv

Technical Support Hours: Monday-Friday

8:30am to 8:00pm Eastern Standard Time