MEGAPIX

DWC-MPTZ20X
DWC-MPTZ20XFM [Flush Mount Model]

IP 2.1MP Pan Tilt Zoom Camera

Before installing or operating the camera, please read and follow this manual carefully.

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 the camera from humidity and dust.
- Protect the camera 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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- 20X Optical Zoom with Auto Focus
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- 3 Sensor Inputs, 1 Sensor Output
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- IP66 Certified (Weatherproof) [MPTZ20X Only]
- Flush Mount Housing [MPTZ20XFM Only]
- Heater and Fan Built-in
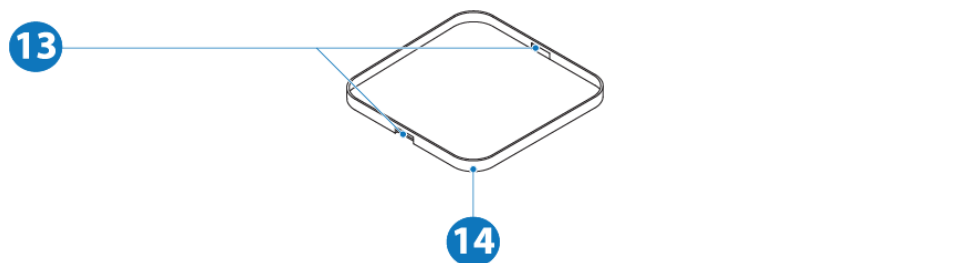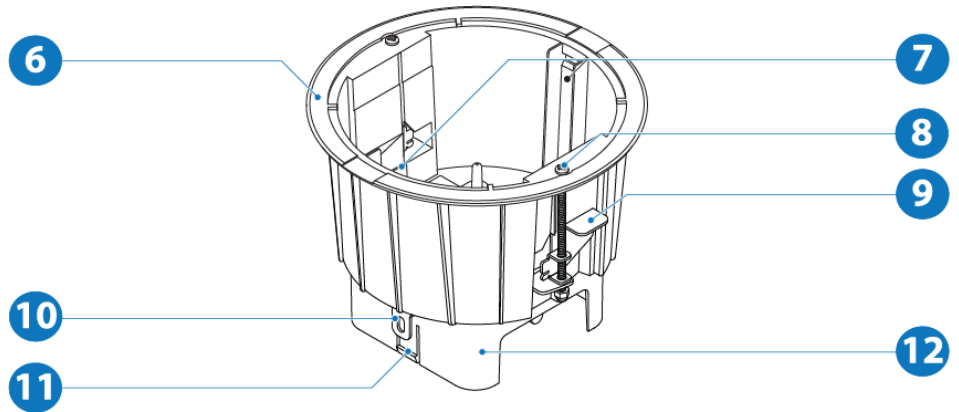- PoE (PoE Injector not Included)
- AC24V

PARTS & DESCRIPTIONS - MPTZ20X*

1. Mounting Bracket (Wall and Ceiling options available)
2. Housing Safety Wire Hanger
3. Sun Shield + Upper Housing
4. Camera Module
5. Dome Safety Wire
6. Camera Dome

Ceiling Mount Bracket
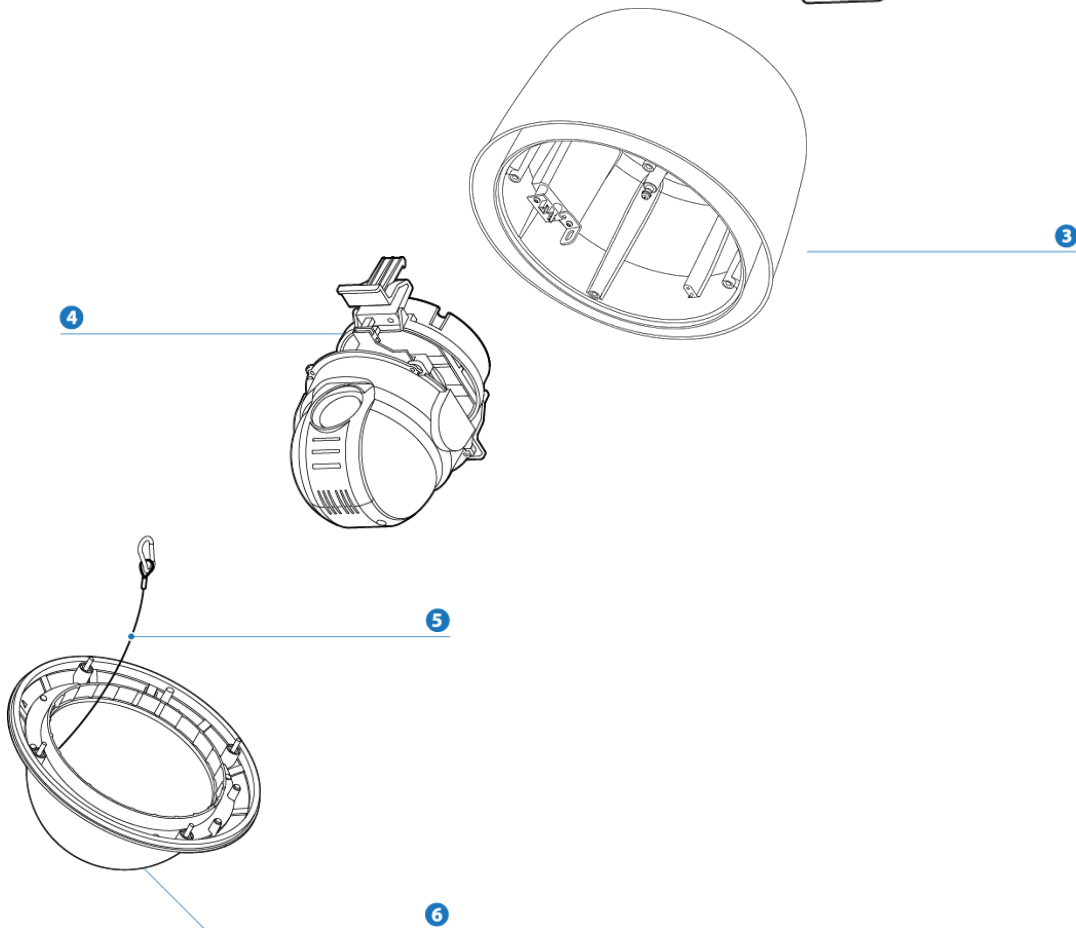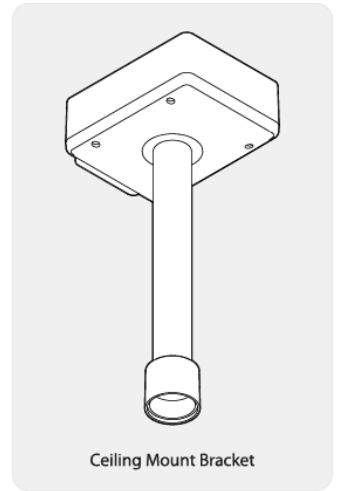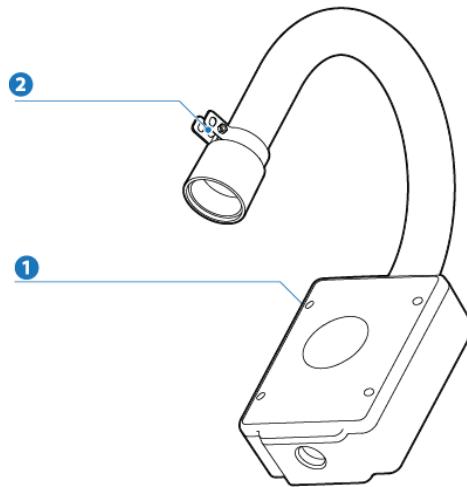
PARTS & DESCRIPTIONS - MPTZ20XFM*

1. Cover Dome Hooks
2. Cover Dome Side Connectors
3. Cover Dome
4. Camera Module
5. Camera Hooks
6. In Ceiling Housing
7. Camera Module Hook Guide
8. Mounting Clip Bolt
9. Mounting Clip
10. Housing Safety Wire Hanger
11. Flush Mount Hook
12. Flush Mount
13. Flush Mount Cover Side Connectors
14. Flush Mount Cover

PARTS & DESCRIPTIONS*

Audio In/Out Port ❶
Alarm In/Out and RS-485 ❷
Network Cable Port ❸
Fan ❹
Heater ❺
❻ Micro SD Card Slot & Cover
❼ Power Port
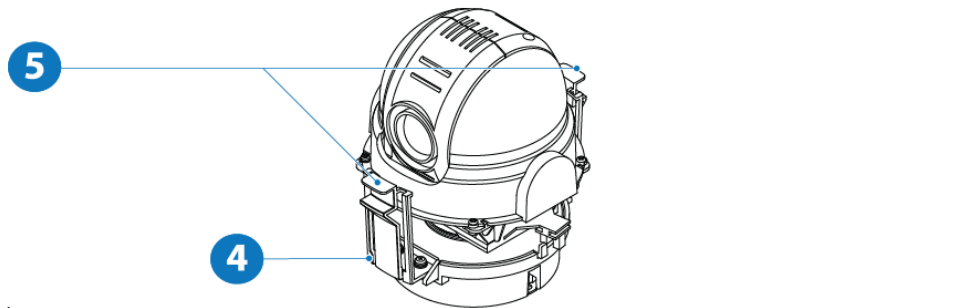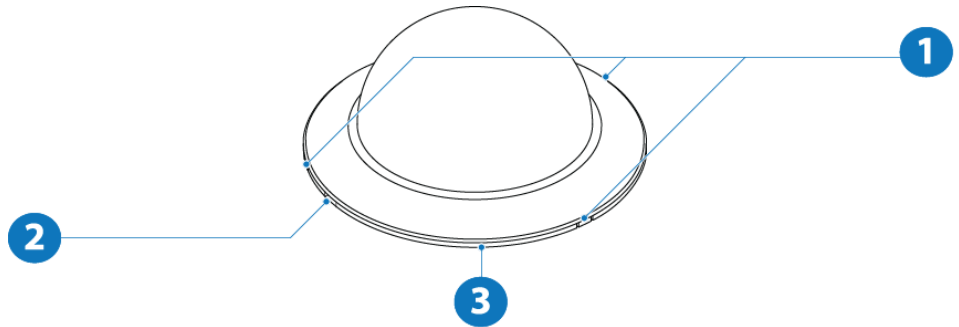
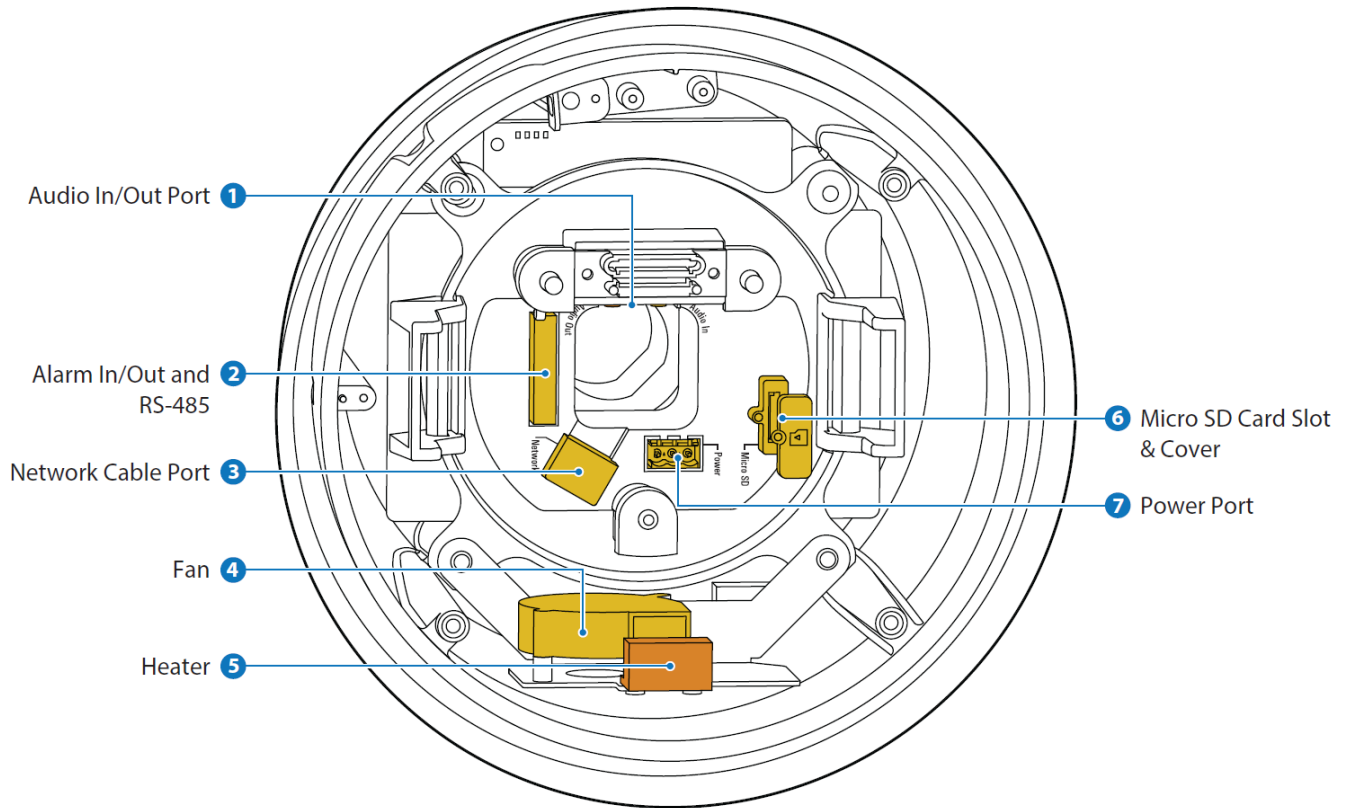|	Camera Part	Description
1	Alarm In/ Out	Connects to peripheral devices according to camera settings
2	Network Cable Port	RJ45 Cross over network cable connector
3	Fan	Defrosts the dome cover and removes moisture.
4	Heater	Defrosts the dome in low temperature by increasing the internal temperature of the camera housing.
5	Audio Output Port	Connection for audio output cables
6	Audio Input Port	Connection for audio input cables.
7	Micro SD Card Slot	Enter a micro SD card for local emergency backup (not included)
8	Power Port	Connect 24VAC power source.

DIMENSIOSN - MPTZ20X*

1-1/2" NPT Pipe Thread

193.5 (7.61")

72.2 (2.84")

⌀145.4 (5.72")

⌀260 (10.23")

DIMENSIOSN - MPTZ20XFM*

117.7(4.6")

51.5(2.0")

101.8(4.0")

90.9(3.6")

72.7(2.9")

211.8(8.3")
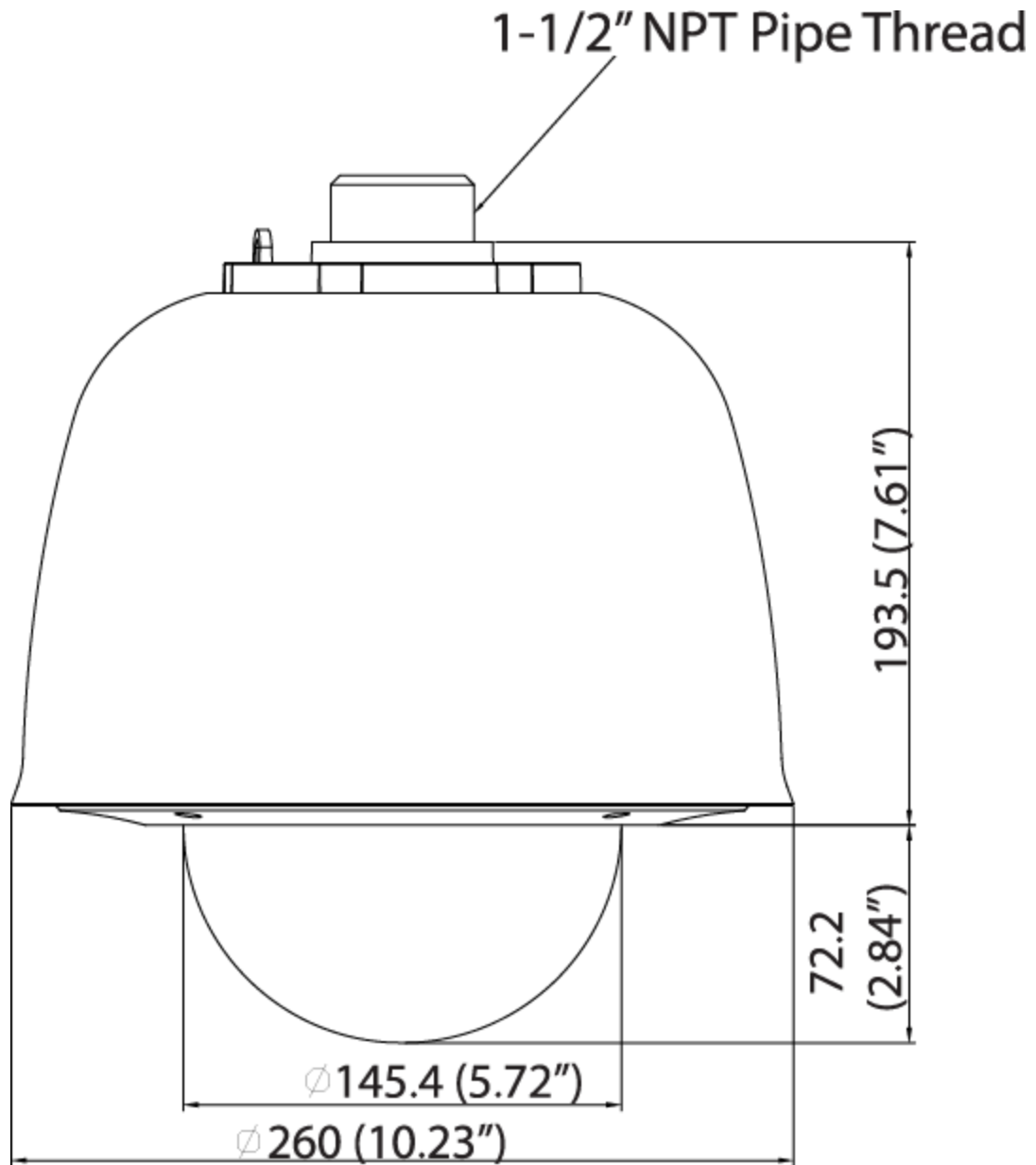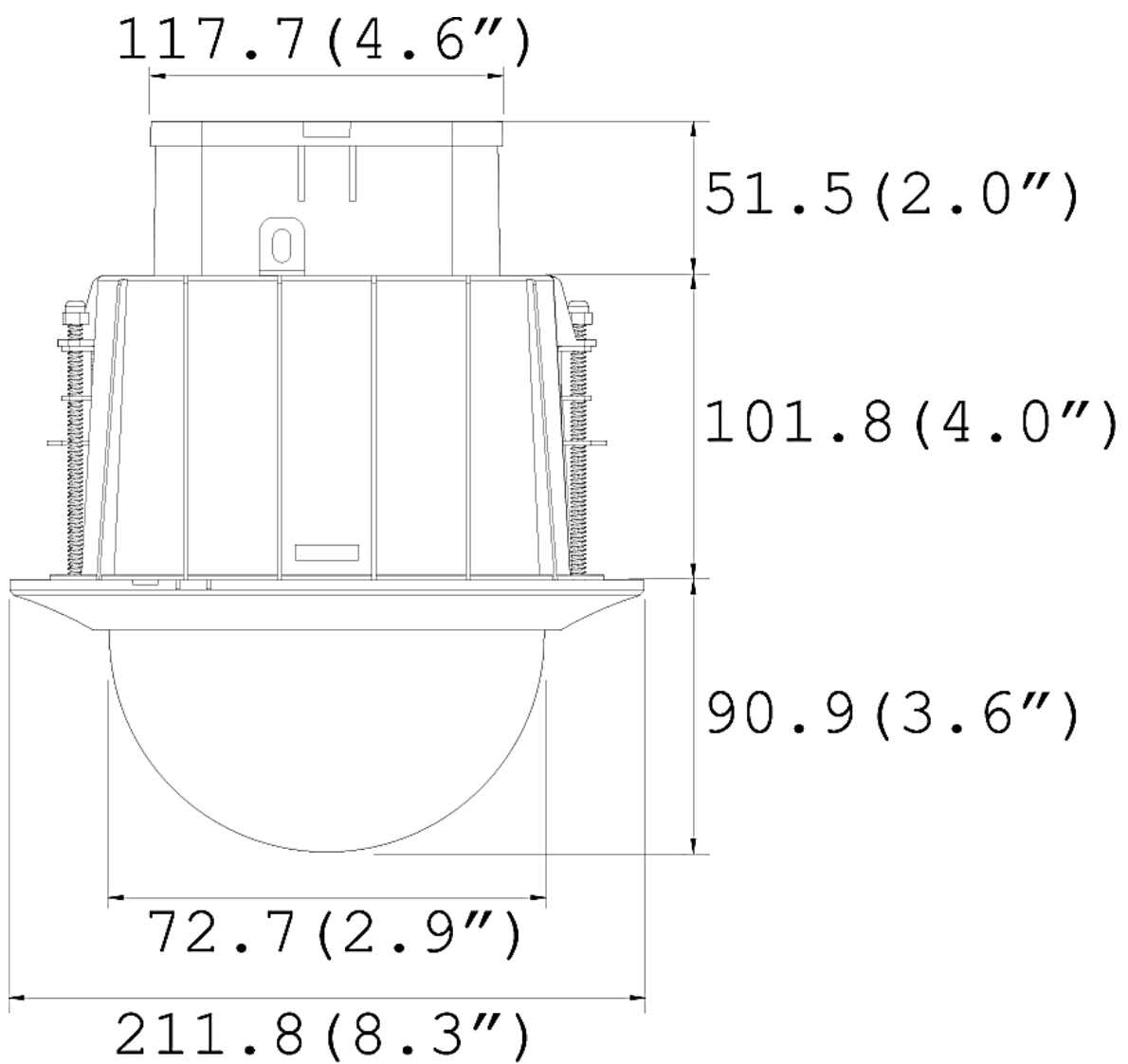
INSIDE THE BOX – MPTZ20X*

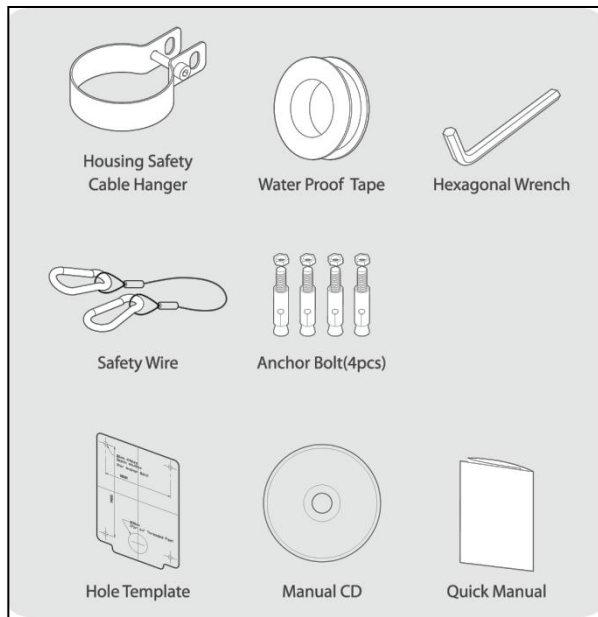The following items are included with the MEGAPIX camera.

1. Housing Safety
2. Water-Proof Tape
3. Hexagonal Wrench
4. Anchor Bolt (4pcs)
5. Hole Template
6. CD (Manual + QSG + IP Finder Software)
7. Safety Wire
8. Quick Start Guide [QSG]
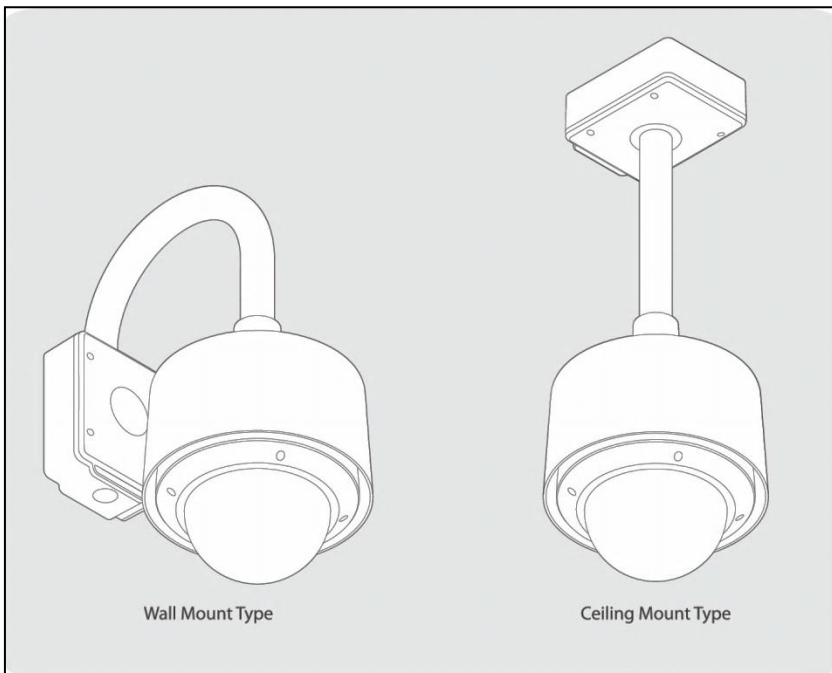
1. Wall Mount Camera Type
2. Ceiling Mount Camera Type

INSIDE THE BOX – MPTZ20XFM*

Dome Cover

In-Ceiling Housing
with PTZ Mechanism

Safety Wire X2

CD with
User's Manual
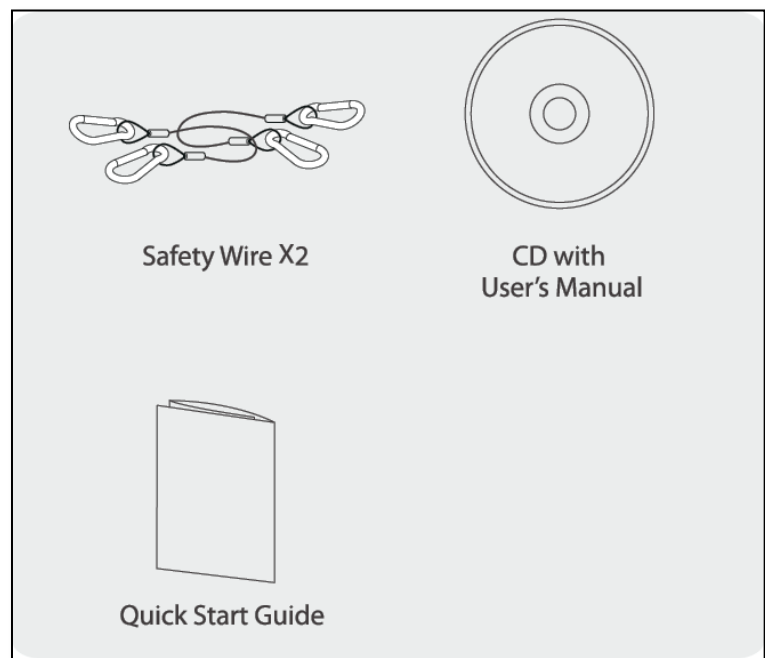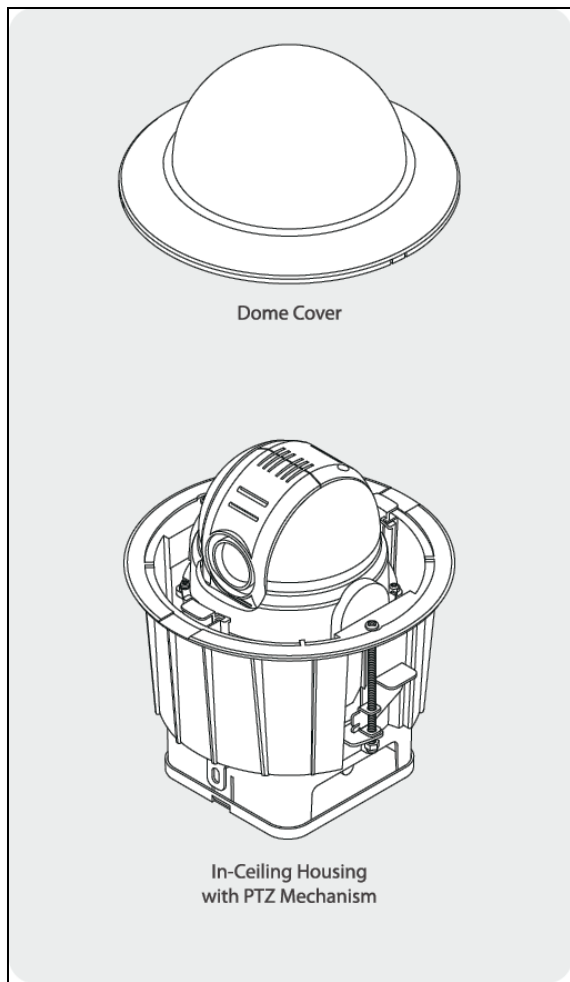
Quick Start Guide

1. Dome Cover
2. Camera Module in Flush Mount Housing
3. 2x Safety Wires
4. Quick Start Guide [QSG]
5. CD (Manual + QSG + IP Finder Software)

NETWORK CONNECTION*

There are two options to power the MPTZ20X camera.

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 connected to a PoE injector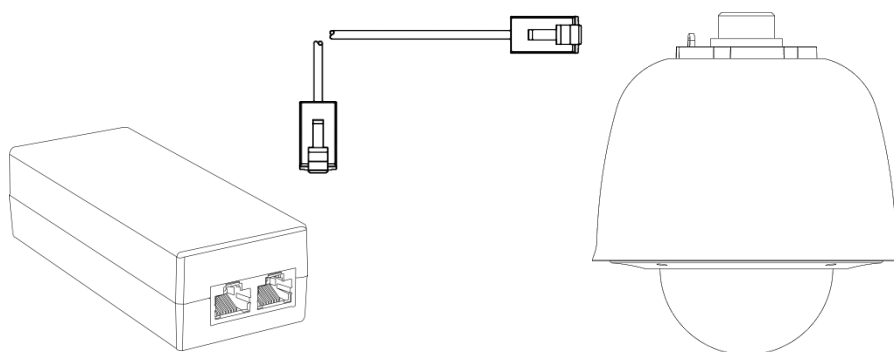. PoE injectors eliminates the need for the different cables used to power, record, or control the camera. Follow the illustrations below to connect the camera to a PoE- injector using an Ethernet cable.

2. Using 24VAC
   If a PoE injector is not available, use a power adaptor for power transmission and a non-PoE switch for data transmission. Follow the illustrations below to connect the camera without a PoE Injector.

adaptor (not included)

24VAC

Non-PoE Switch
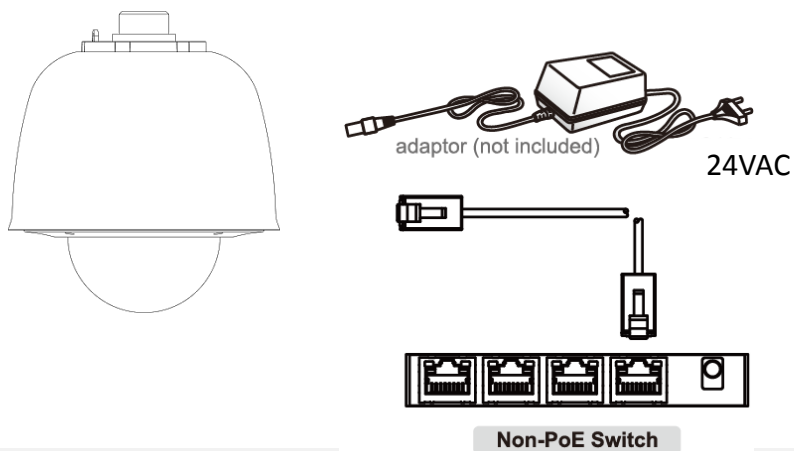
INSTALLATION*

Wall Mount Bracket Installation

Ceiling Mount Bracket Installation

[1]

[2]

[3]

[4]
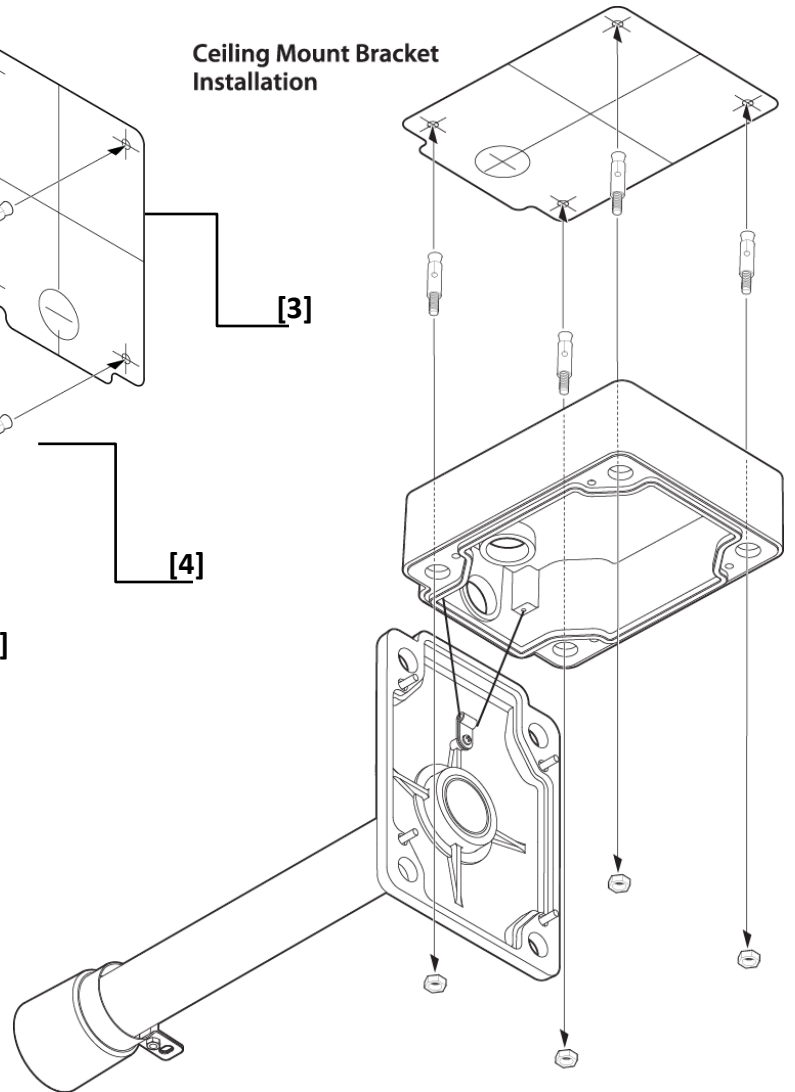
1. Unscrew the top cover of the Mounting Box.
2. Remove the protective plastic to expose the four (4) screw holes.
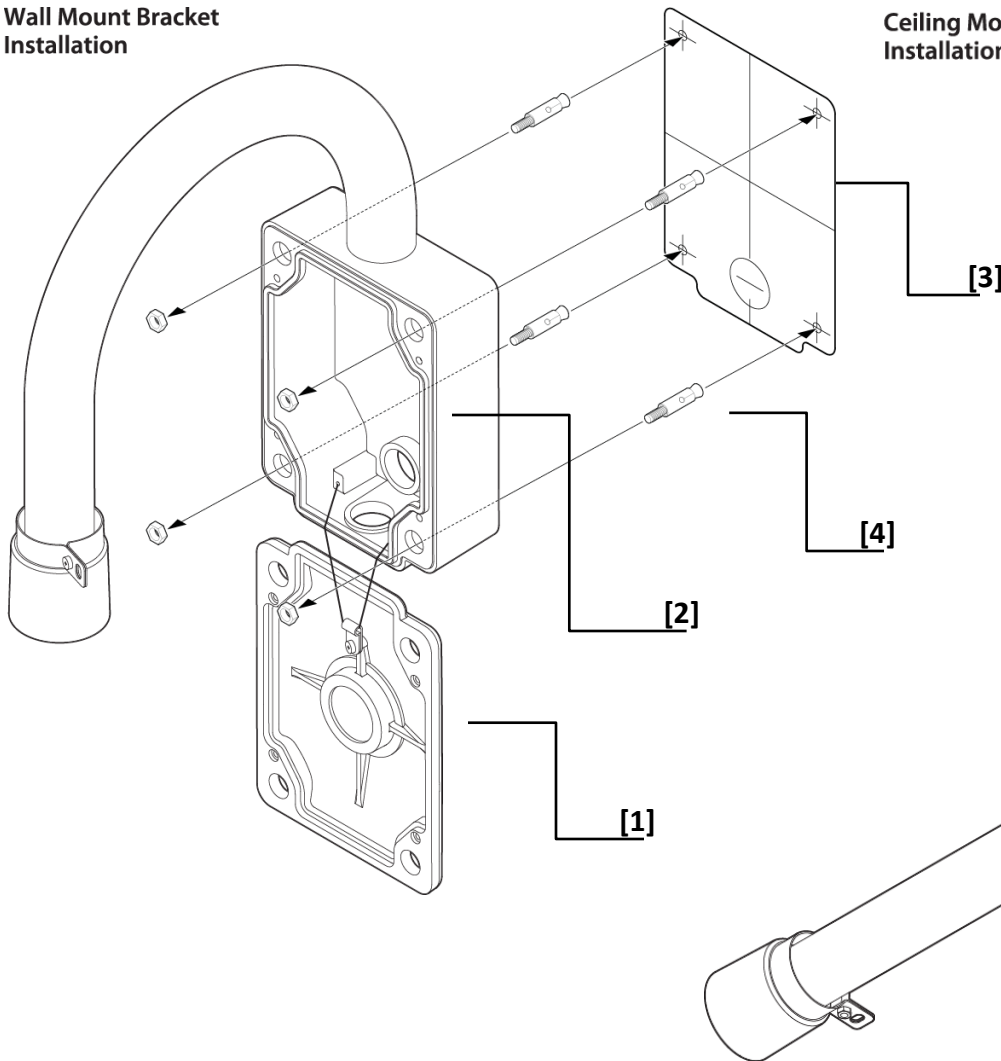3. Using the Mounting Box or the Mounting Template, locate on the wall/ ceiling the locations for the four (4) bolts.

Note: the Anchor bolts included in with the camera kit are for concrete. Be sure to consult with your installer what bolts are necessary depending on the wall/ ceiling surface.

4. Using a drill, drill four (4) holes for the bolts. Mount the Mounting box on the wall/ceiling.

Note: If your camera model includes the inner box inside the Mounting Box, make sure the cables remain intact during installation.

INSTALLATION*

[5]

[6]

B   A

[7]
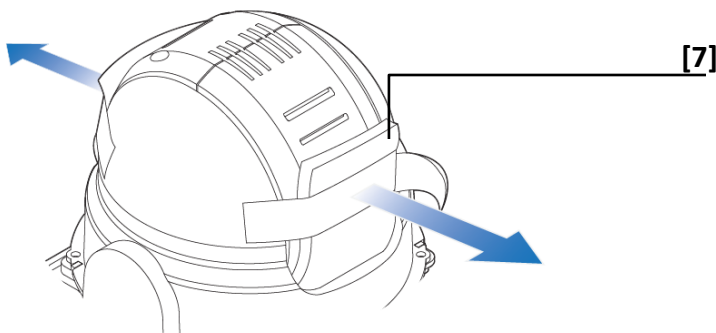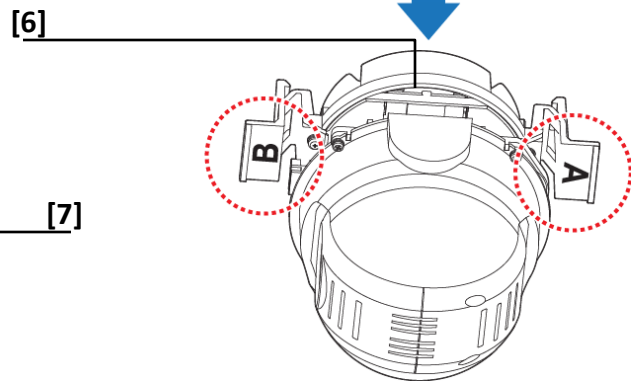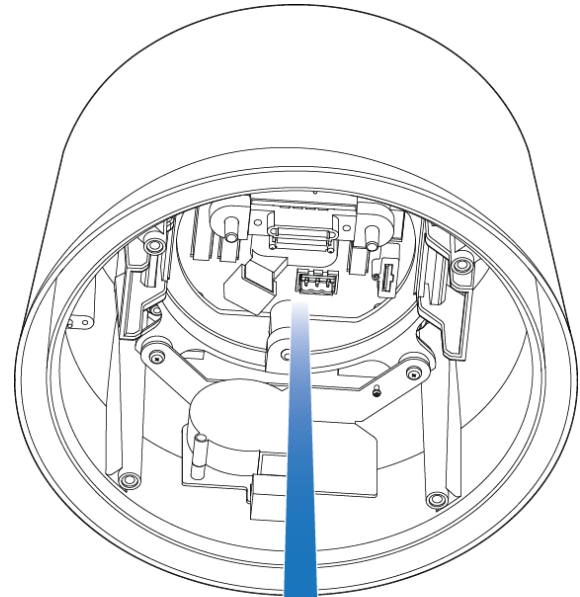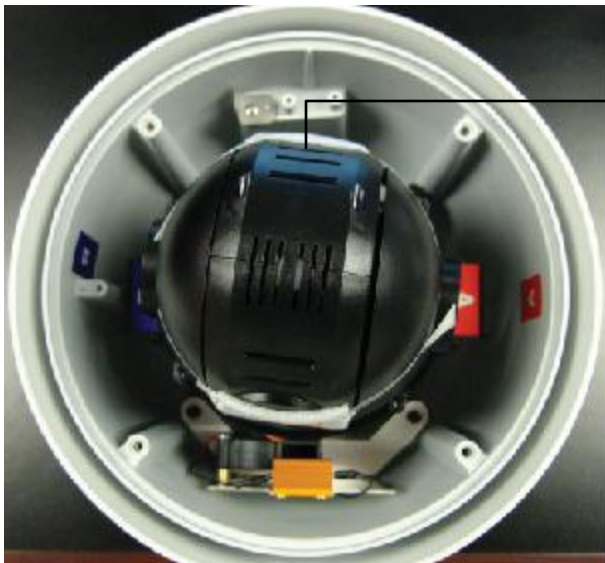
5. Remove the PTZ mechanism from the upper housing to connect all necessary cables.

6. To detach camera mechanism, press down and hold both black handles on the camera mechanism. Pull them up to detach the camera.

7. Remove the tape used to fix the PTZ mechanism after detaching the PTZ mechanism from the upper housing. This was used to protect the camera's lens during shipping and should be removed before turning the camera's power on.

INSTALLATION*
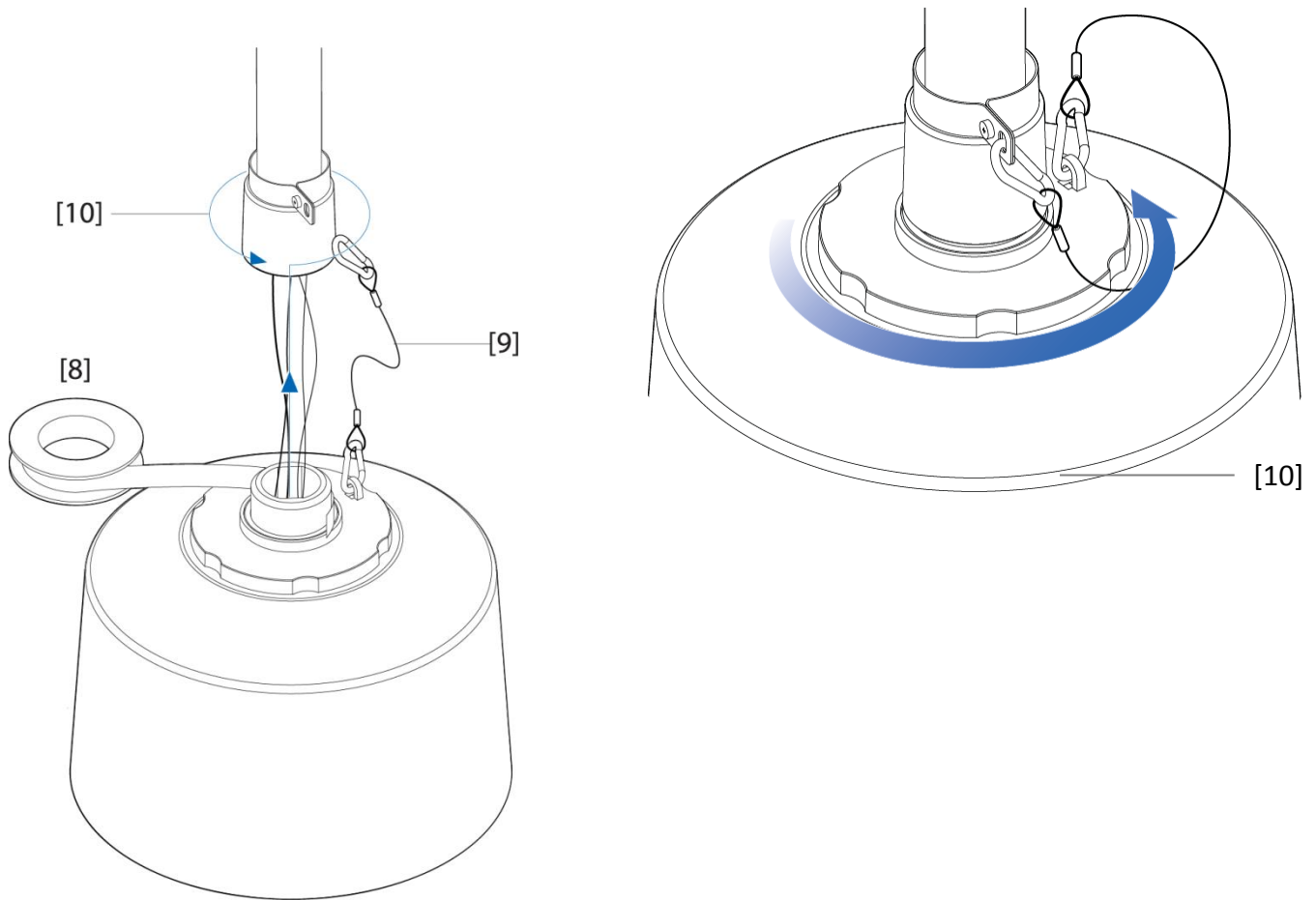
8.   To protect the camera from potential water damage, it is recommended to use the water proof tape on the pipe of the upper housing.

9.   Hook the safety cable between the mounting accessory and the upper housing.

10. Attach the upper housing to the mounting pole by rotating it clockwise until the upper housing and the mounting accessory are tightly connected.

INSTALLATION*

11. Run all the necessary cables via the mounting accessory's bracket to the upper housing.

12. Connect each of the following cables to the applicable port. Use the diagram below for more information.*

    a.   Alarm In/ Out Port

    b.   Audio In Port

    c.   Audio Out Port

    d.   Network Cable Port

    e.   Power Port

    f.   Micro SD Card Slot & Cover

13. Check the LED lights are on. Green light flickers when the camera is booting, and Red light turns on when booting is complete.
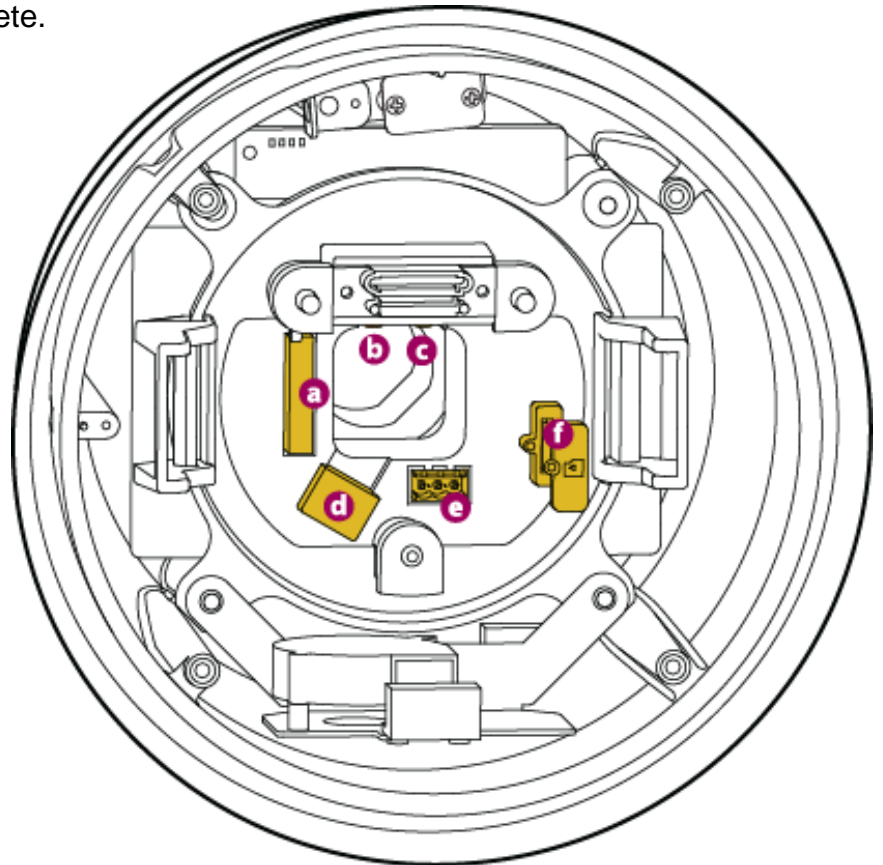
* See next page for proper cabling connections and SD Card installation.

INSTALLATION*

Cabling

Use the diagram below for proper cabling of peripheral devices such as 2nd video output, power, and network.

① Network Connection
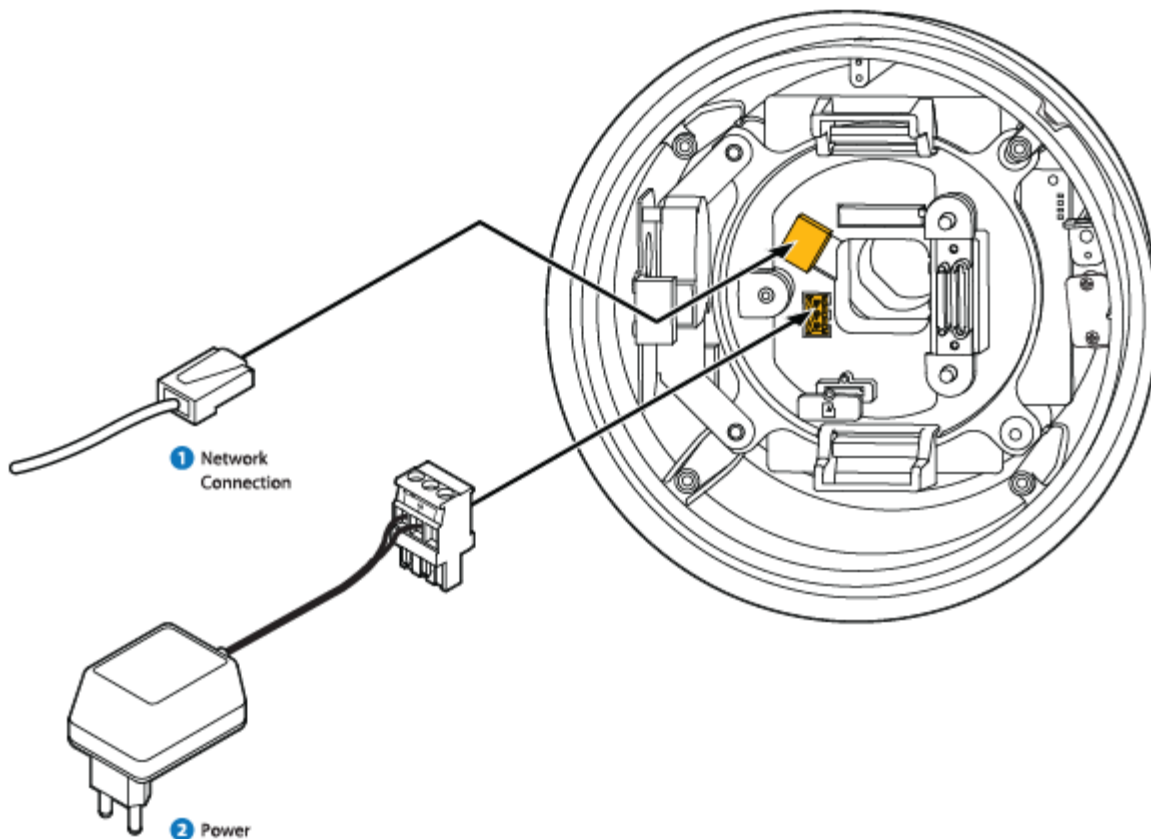
② Power

① **Network Connection**

Connect the crossover cable into the RJ-45.

② **Power Connection**

Please, check the voltage and current capacity of rated power carefully.

Rate Power	Current Consumption
AC 24V	Heater Off: 23W • Heater On: 55W

INSTALLATION*

Cabling

Use the diagram below for proper cabling of peripheral devices such as 2nd video output, alarms inputs, and outputs.
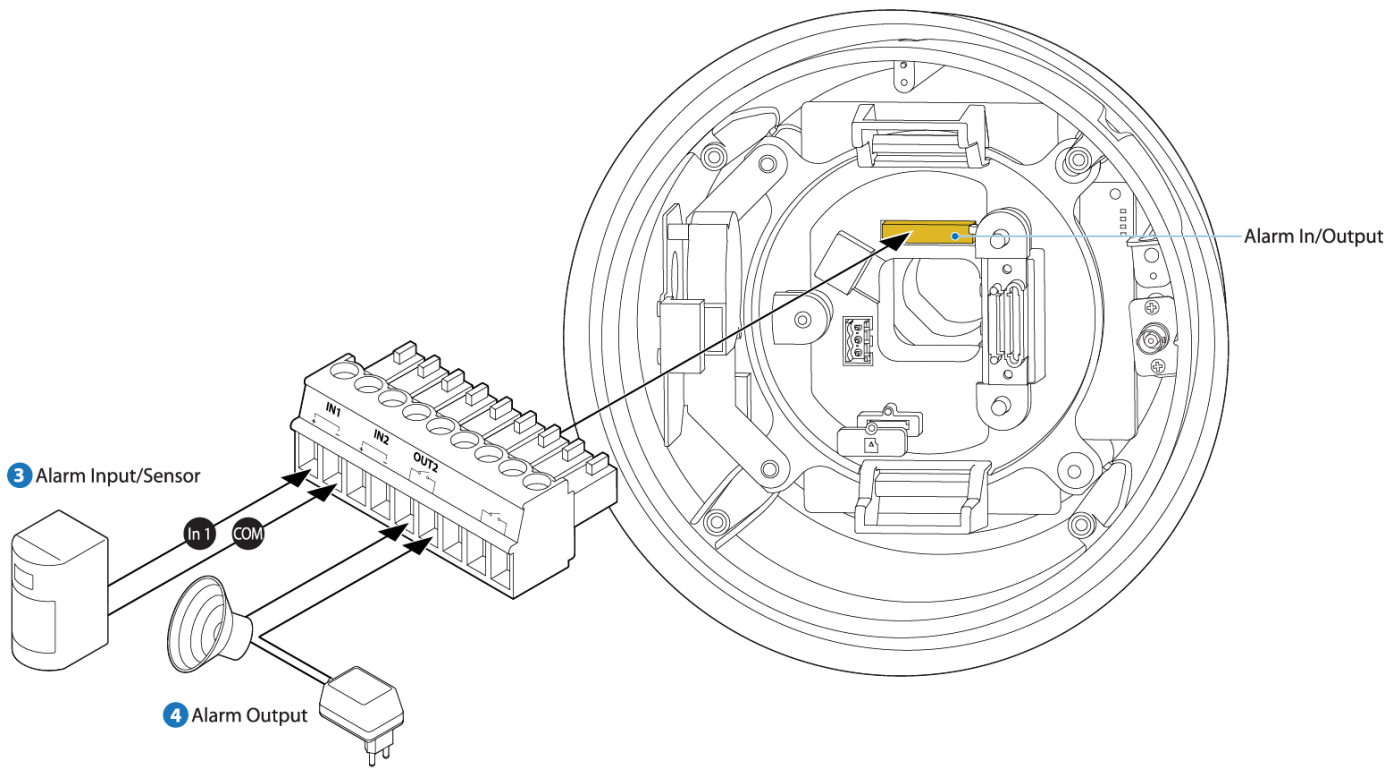
3 Alarm Input/Sensor
If you want to use alarm input, the types of sensor must be selected in Setup menu. The sensor types are 'Normal Open' and 'Normal Close'. If sensor type is not selected properly, the alarm can be activated reversely.

4 Alarm Output
There are 4 alarm outputs and all of them are relay contact type. Therefore, you do not have to care about polarity, AC/DC, and isolations between channels. Care must be taken for the power capacity of relay contact written above.

INSTALLATION*

Cabling

Use the diagram below for proper cabling of peripheral devices such as audio input (microphone) and audio output (speaker)
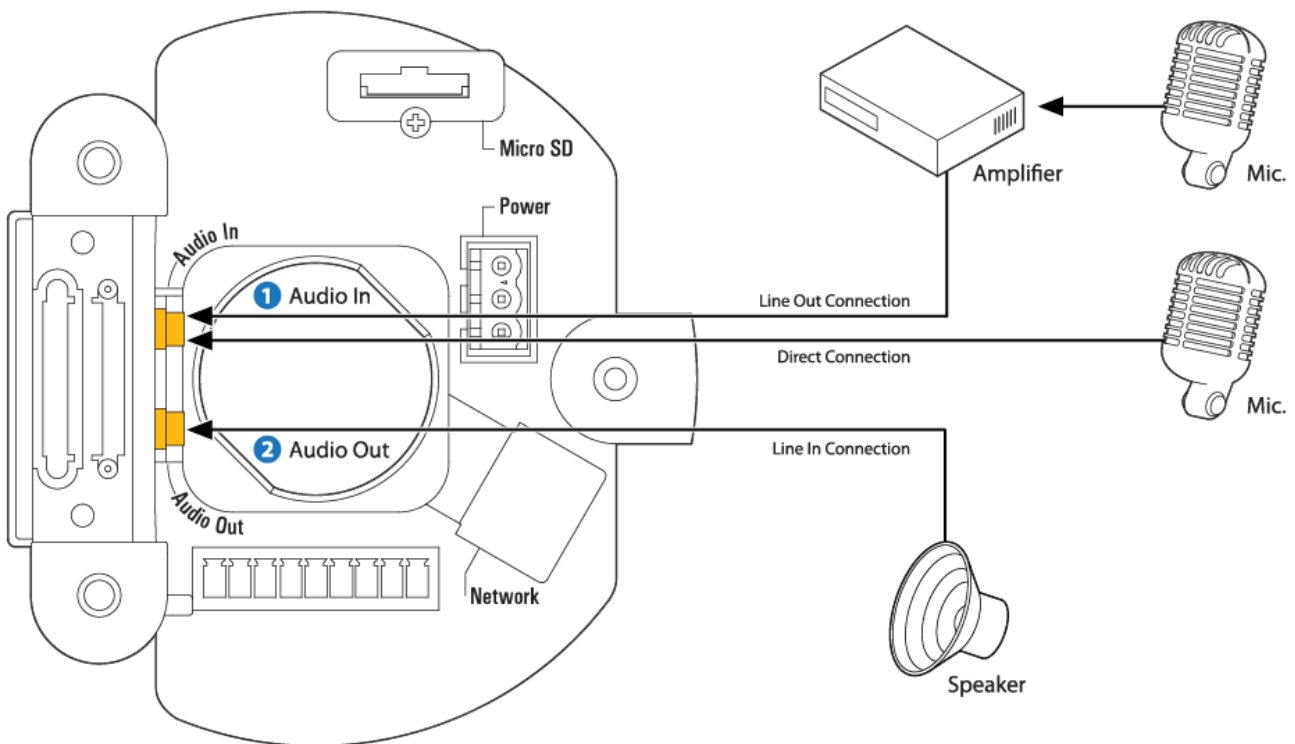
❶ Connect the 'Audio In' port of the camera to the microphone directly or 'Line Out' port of the amplifier connected with microphone.

❷ Connect the 'Audio Out' port of the camera to the 'Line In' port of the speaker.

　　※ In case the microphone connects directly to 'Audio Out' port, the speaker does not work. The 'Mic In' function is not supported.

INSTALLATION*

SD Card

Use the diagram below for installation of an SD Card for local emergency backup. When setup properly, the camera will record to the local SD card when it detects it is not recording to any servers and is not connected to

The memory card is an external data storage device that has been developed to offer an entirely new way to record and share video, audio, and text data using digital devices.
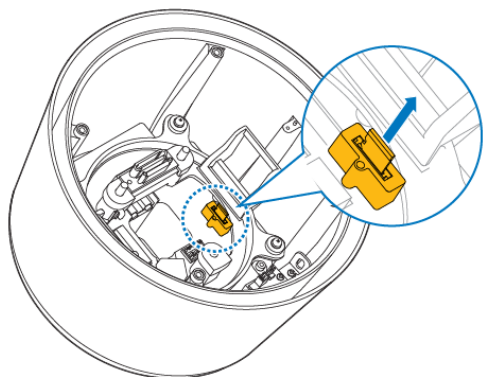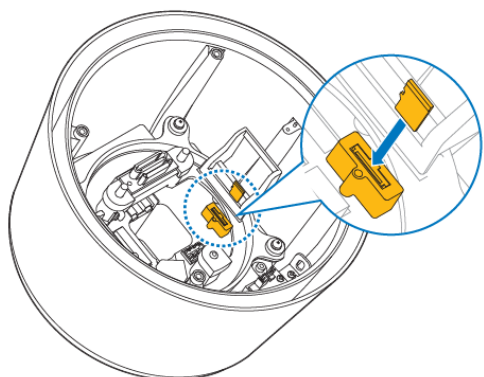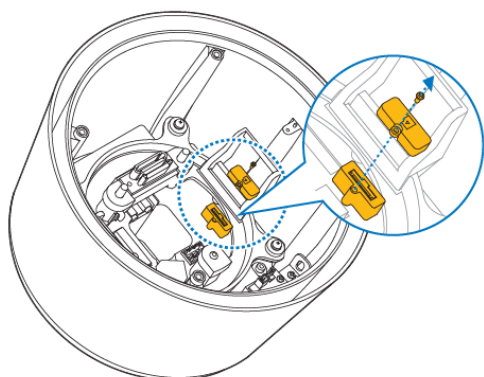
※ Recommended SD Card Specification (Not Included)
- Type: Micro SD (SDHC)
- Manufacturer: Transcend, Kingston, Toshiba, Sanddisk
- Capacity: 4~16G
- Class: over Class 6

❶ Inserting an SD Memory Card

Loosen the screw before removing the SD memory card cover. Insert the SD card in the arrow direction.

※ Don't insert the SD memory card while it's upside down by force. Otherwise, it may damage the SD memory card.

❷ Removing an SD Memory Card

Removing an SD Memory Card Gently press down on the exposed end of the memory card as shown in the diagram to eject the memory card from the slot.

※ Pressing too hard on the SD memory card can cause the card to shoot out uncontrollably from the slot when released.

※ If you have saved data in the SD memory card, removing the SD memory card prior to setting record to OFF will cause damage to the data stored in the card.

INSTALLATION*

[14]

[15]

[16]

Arrow Mark

[17]
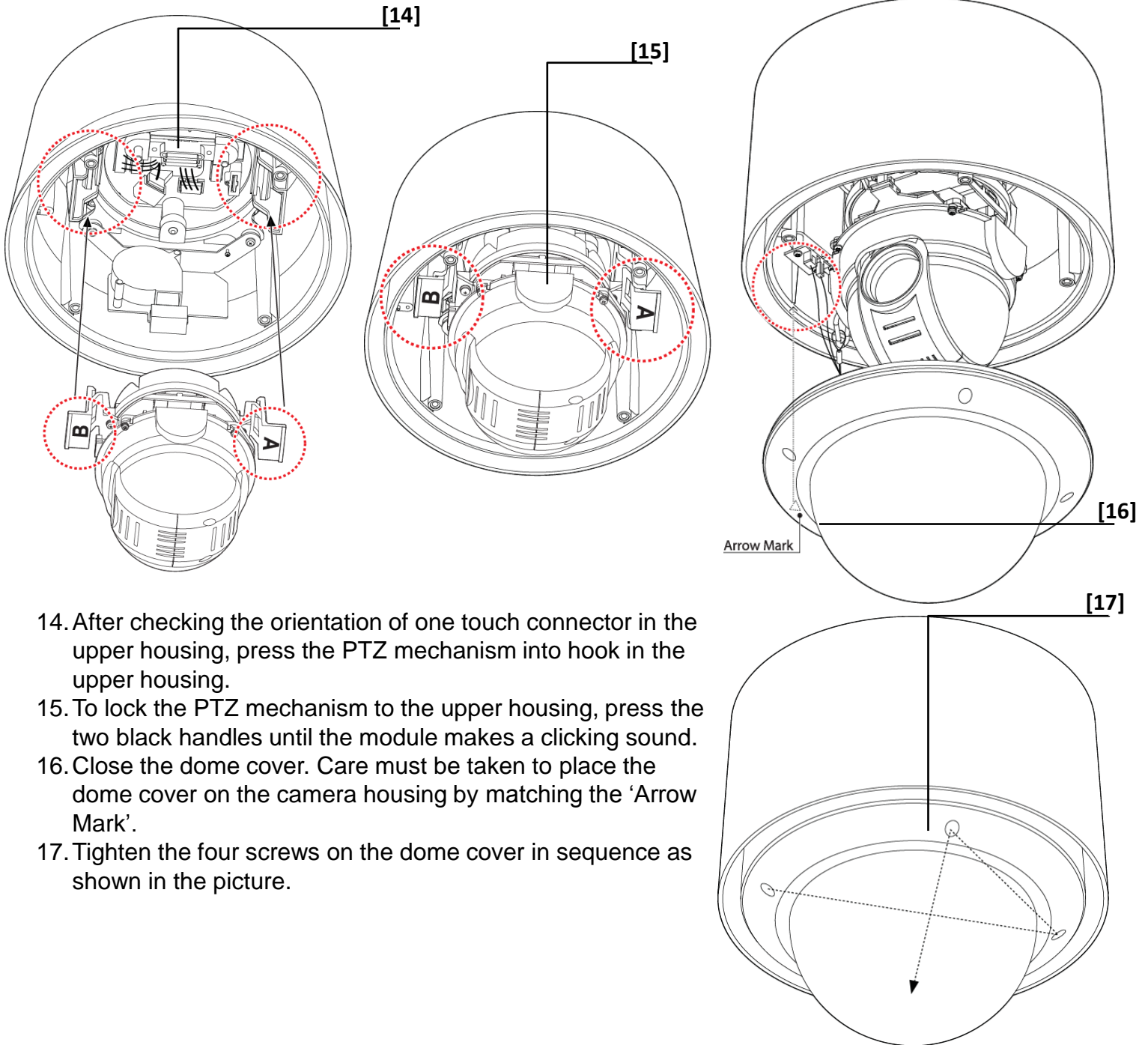
14. After checking the orientation of one touch connector in the upper housing, press the PTZ mechanism into hook in the upper housing.
15. To lock the PTZ mechanism to the upper housing, press the two black handles until the module makes a clicking sound.
16. Close the dome cover. Care must be taken to place the dome cover on the camera housing by matching the 'Arrow Mark'.
17. Tighten the four screws on the dome cover in sequence as shown in the picture.

*NOTE: To achieve optimal sealing, the torque of each screw must be in the range between 0.5 ~ 1.0 N·m (0.3 ~ 0.73 lbf·ft)

INSTALLATION - FLUSH MOUNT*
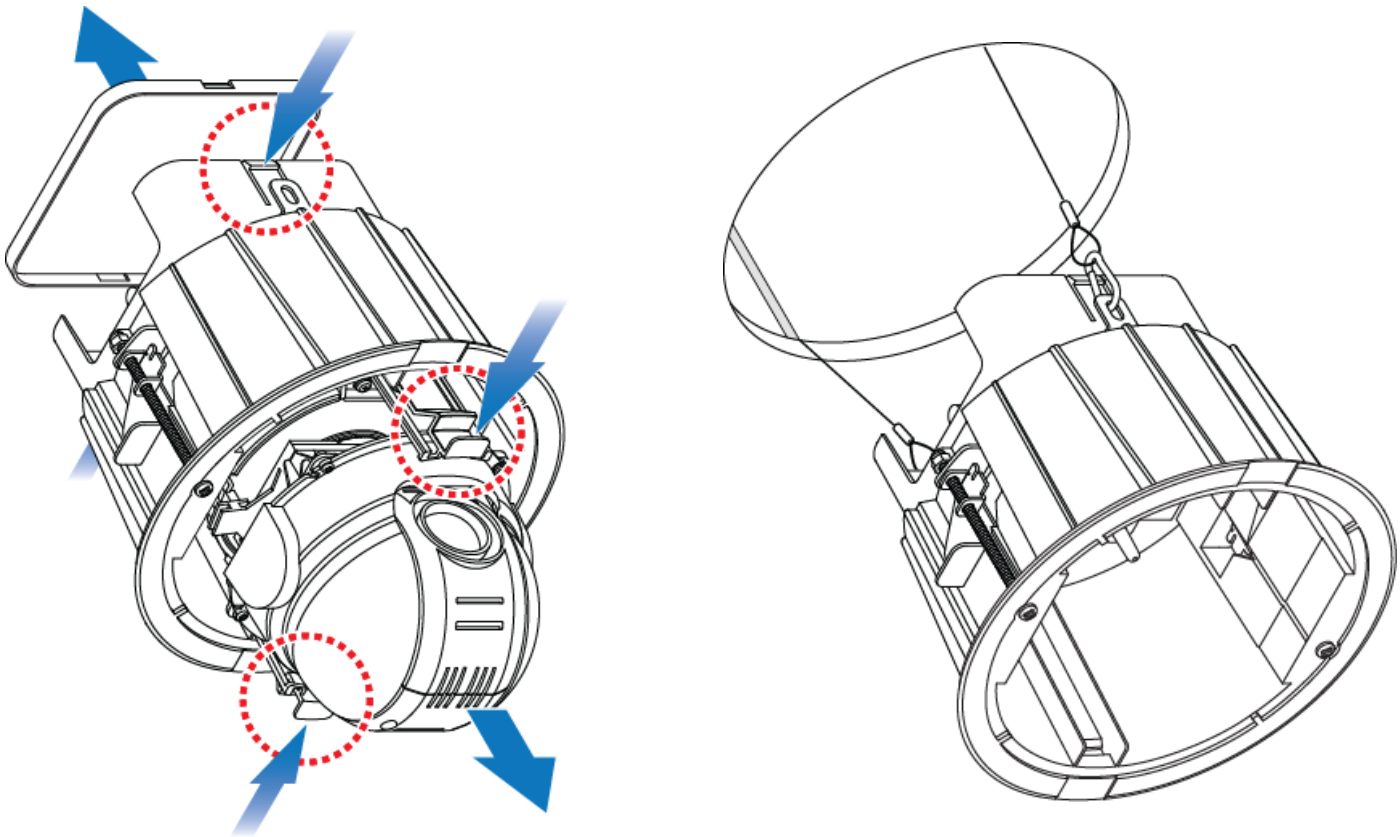
1. Remove the PTZ mechanism from the in-ceiling housing to connect all necessary cables. To detach camera mechanism, press down and hold both black handles on the camera mechanism. Pull them up to detach the camera.

2. Detach the Flush Mount cover by pressing on the connectors on the side of the flush mount housing.

3. To mount the flush mount camera in the ceiling, drill a 190mm (7.48") diameter hole in the ceiling.

4. Use the safety wires to secure the flush mount to the ceiling during and after installation.

INSTALLATION - FLUSH MOUNT*

5. Run all the necessary cables via the mounting accessory's bracket to the upper housing.

6. Connect each of the following cables to the applicable port. Use the diagram below for more information.*

    a. Alarm In/ Out Port

    b. Audio In Port

    c. Audio Out Port

    d. Network Cable Port

    e. Power Port

    f. Micro SD Card Slot & Cover

7. Check the LED lights are on. Green light flickers when the camera is booting, and Red light turns on when booting is complete.
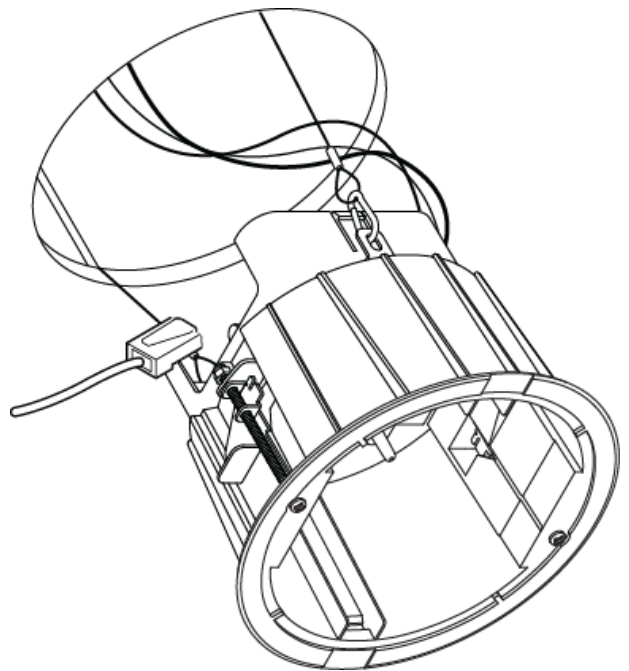
* See pages 17-20 for proper cabling connections and SD Card installation.

INSTALLATION - FLUSH MOUNT*

8. Once all the cables are properly connected to the camera, close the Flush Mount cover by attaching the connectors to the side of the flush mount.

9. Insert the in-ceiling housing into the ceiling hole and press the edge of the housing against the ceiling.

10. Secure the in-ceiling housing in place by turning the clip bolts located on the housing **Clockwise.** .
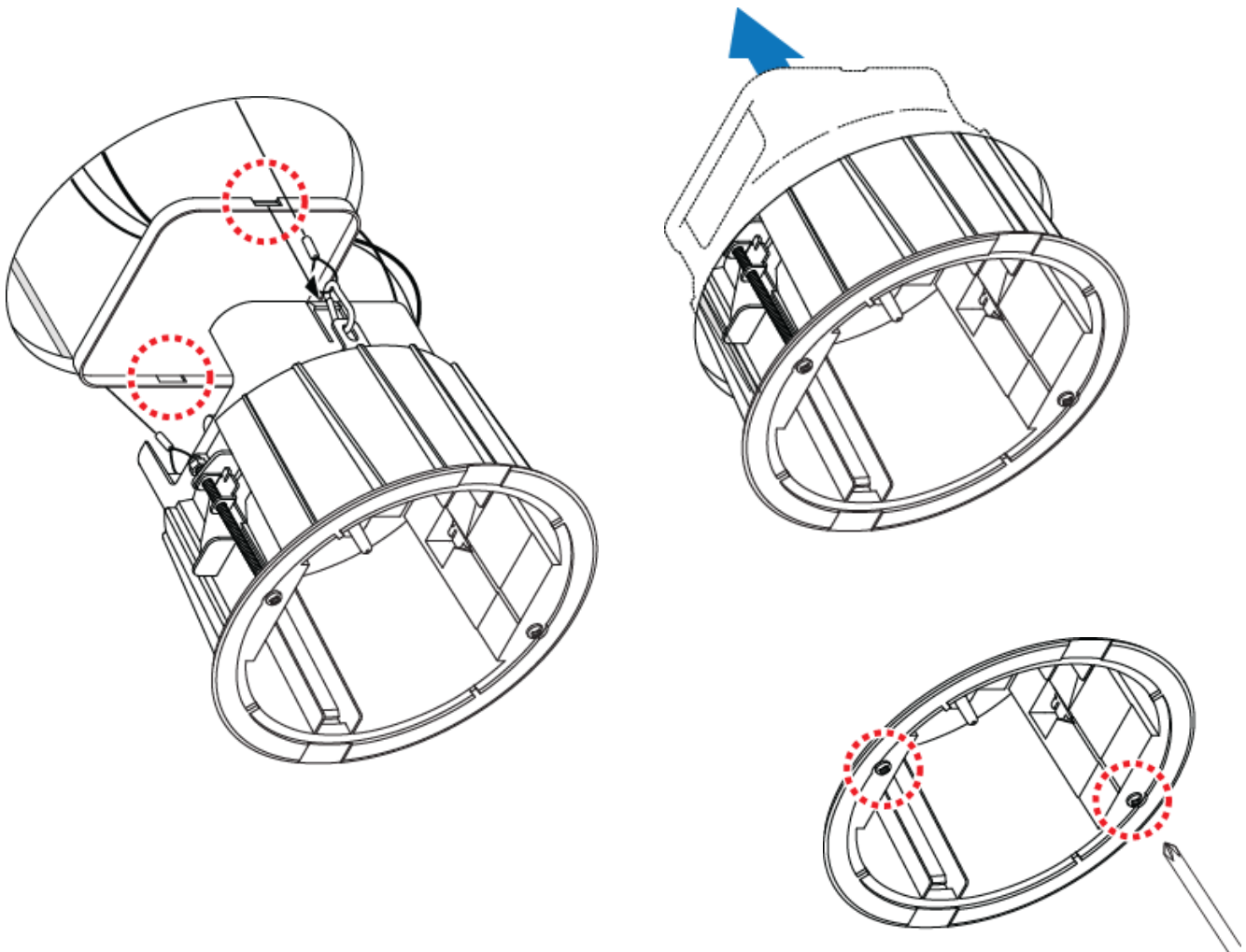
INSTALLATION - FLUSH MOUNT*

11. After checking the orientation of one touch connector in the upper housing, press the PTZ mechanism into hook in the upper housing.

12. To lock the PTZ mechanism to the upper housing, press the two black handles until the module makes a clicking sound.

13. Close the dome cover dome and secure it to place using the accessory wrench.

14. When the installation is complete, remove the protective plastic from the cover dome.
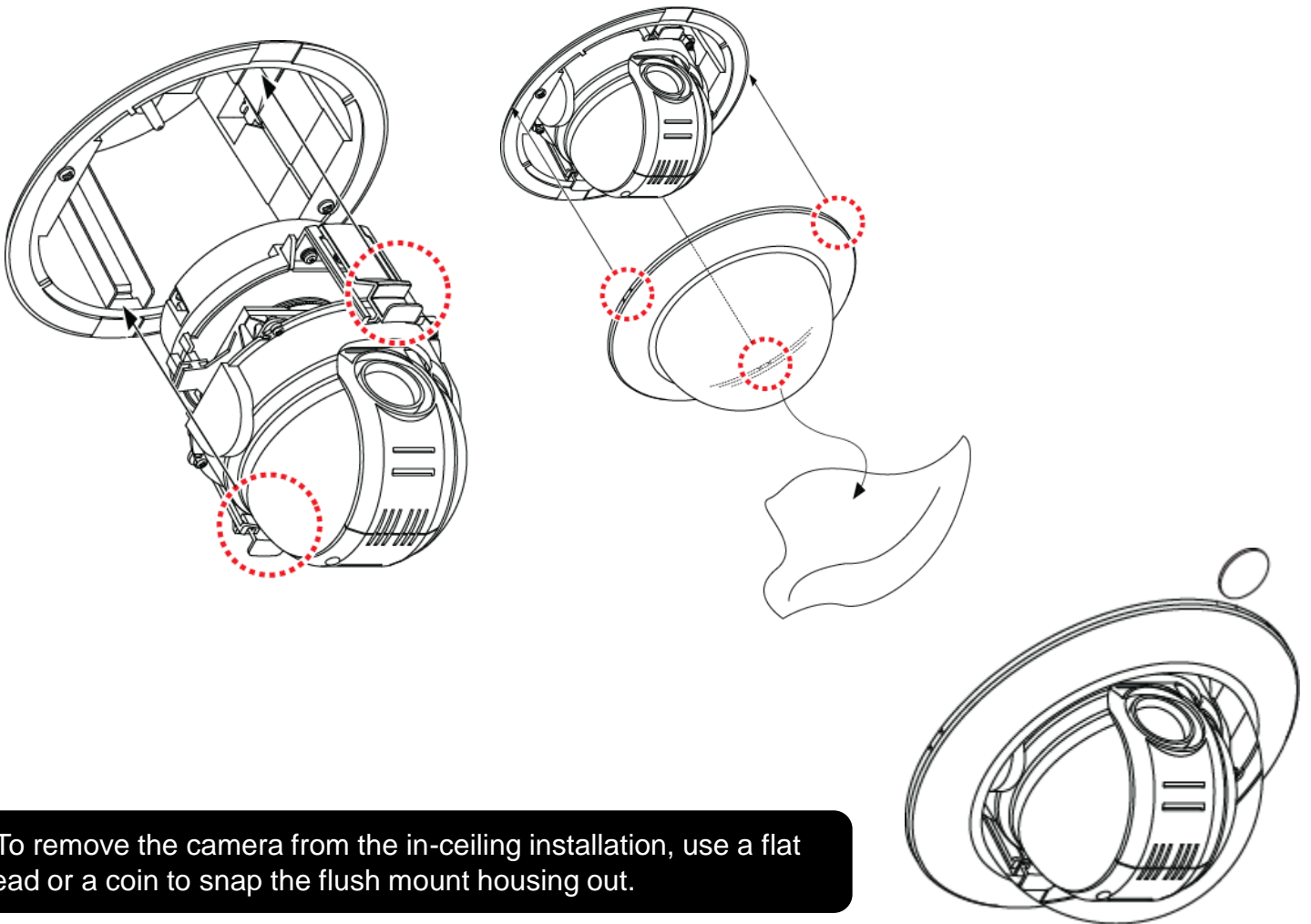
* To remove the camera from the in-ceiling installation, use a flat head or a coin to snap the flush mount housing out.

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 **Search** button. Your MEGAPIX camera will appear as "**DWC-MPTZ20X**."

4. Select the desired device and click **Web Connect** to access the camera directly via Internet Explorer.
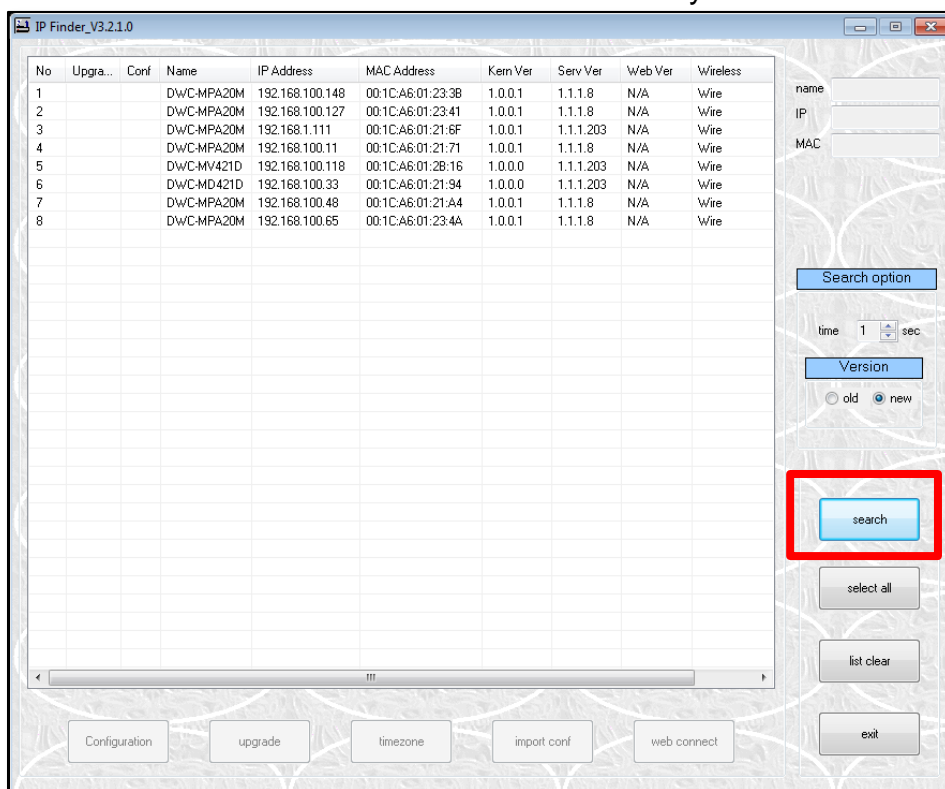
*Install the IP Finder to a computer located on the same Subnet Mask as the MEGAPIX camera.

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. **Timezone**: Change the timezone.
4. **Import Config**: Import setup configuration for a specific device.
5. **Web Connect**: Connect to the MEGAPIX camera through Internet Explorer.
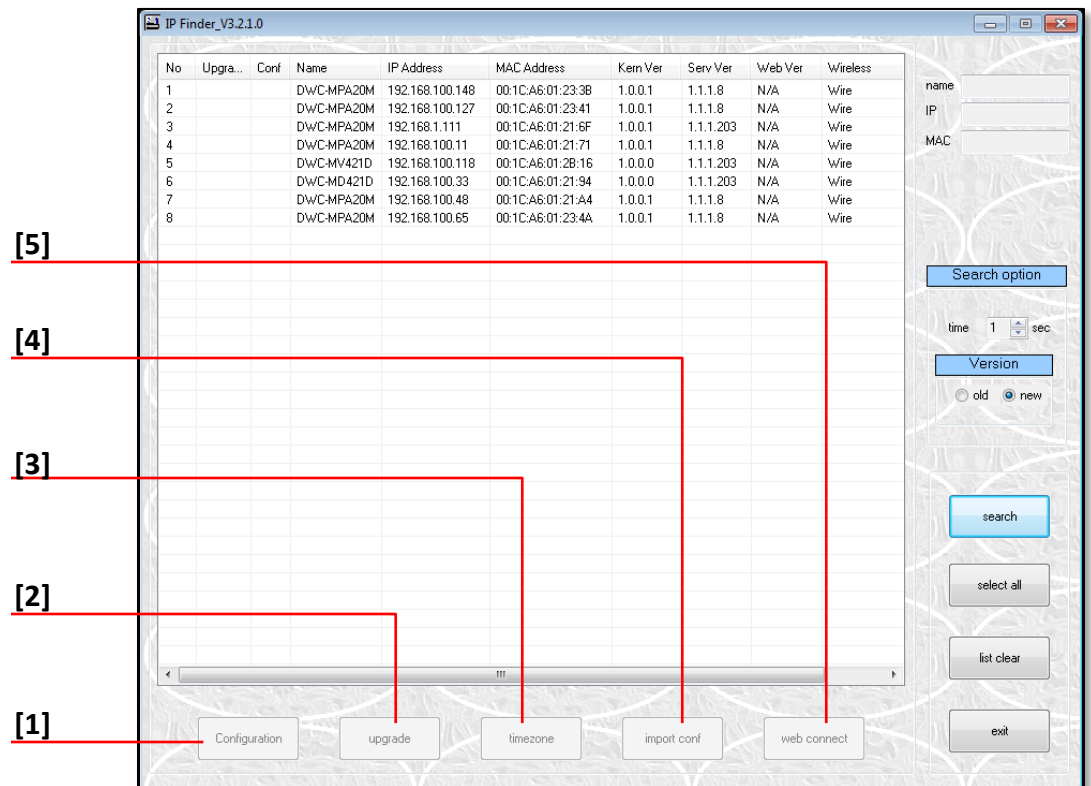
IP FINDER SOFTWARE*

Using IP Finder Software

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

1. **DHCP**: Select DHCP to access the camera within the same internal network. For further explanation on DHCP, please see PAGE 29.

2. **PPPoE**: requires previous registration. Enter the username and password.

3. **Static IP**: Select Static to connect to the camera from an external network. For further explanation on Static, please see PAGE 29.

4. **Use DDNS**: Check this option to use DDNS service. For further explanation on DDNS, please see PAGE 29.

5. **Port**: The port numbers required for communication with the camera. Use the IP Finder to change other basic settings for your MEGAPIX camera. (The menu options may vary depending on the camera model.)

[4]

[1]

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[3]

[5]
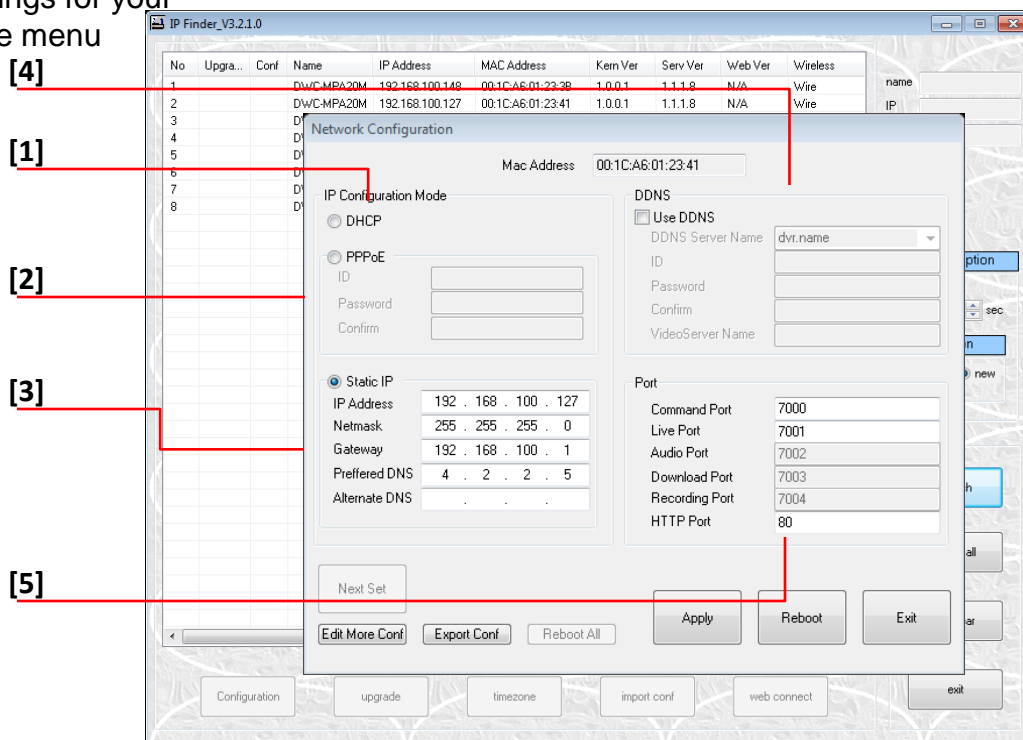
*If you change the camera's IP, write down the camera's MAC Address for identification in the future.

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 set to DHCP, IP Finder will automatically find and set your MEGAPIX camera to correspond with your network requirements.

Static

Static IP addresses are recommended when using a network that does not support DHCP or when setting your device to be accessed externally via the internet. If Static is selected, you must manually enter the correct network settings for your MEGAPIX camera. The settings will correspond with your network. To set your camera to a static IP address, we recommend that you (1) setup the camera to DHCP, (2) allow it to configure itself according to your network, and (3) 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 "Network Configuration" window, make sure **Static** is selected.

2. Enter the following information: **IP Address**, **Netmask**, **Gateway**, and **Preferred DNS**.

3. Click **Apply** and **Reboot** to save all changes.

DDNS

Dynamic Domain Name Server is a feature that allows you to use a specific URL instead of an IP address to access your MEGAPIX camera. This feature is optional. It may require a subscription and fee.

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 a subscription and fee.

3. If applicable, enter the **User ID** and **Password**.

4. Click **Apply** and **Reboot** to save all changes.

IP FINDER SOFTWARE*

Upgrading Cameras using the IP Finder Software

Use IP Finder to perform firmware upgrade to all your MEGApix cameras from one convenient location.

1. Select all the cameras you would like to upgrade. You can select multiple cameras by clicking on multiple camera models while holding down the Ctrl button.
2. Press the 'Upgrade' button.
3. Browse and select the appropriate file to use for the upgrade. Press the 'OK' button.
4. The system will start updating all the selected cameras in a new window.
5. The system will indicate if the upgrade was successful or not for each camera.
6. When all cameras have been properly upgraded, press the 'Close' button
7. To complete the upgrade, reboot the cameras by pressing the 'server reboot' button.
8. Press the 'Exit
9. Allow up to 60 seconds for the cameras to reboot and press the 'Search' button. If the cameras reappear in the IP Finder the reboot is complete and the camera is ready.
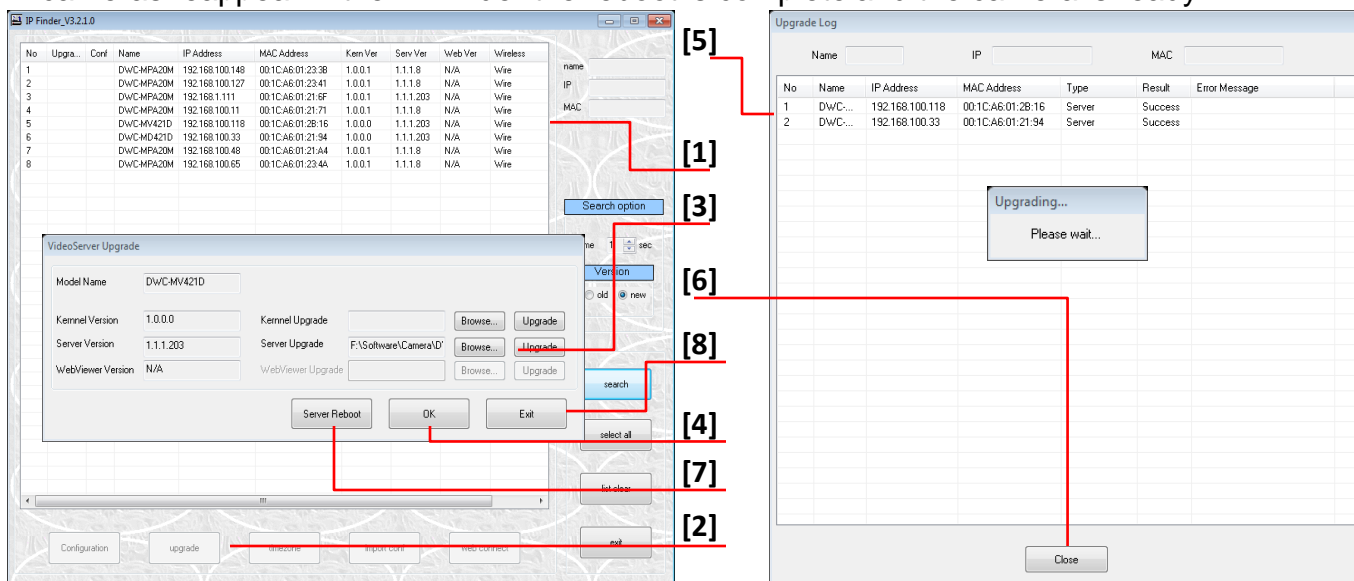
* IP Finder can perform multiple upgrades at the same time only for the same camera models. Some cameras may require different firmware depending on the model.

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	**192.168.1.23**
Command Port	**7000**
HTTP Port	**80**
Live Port	**7001**
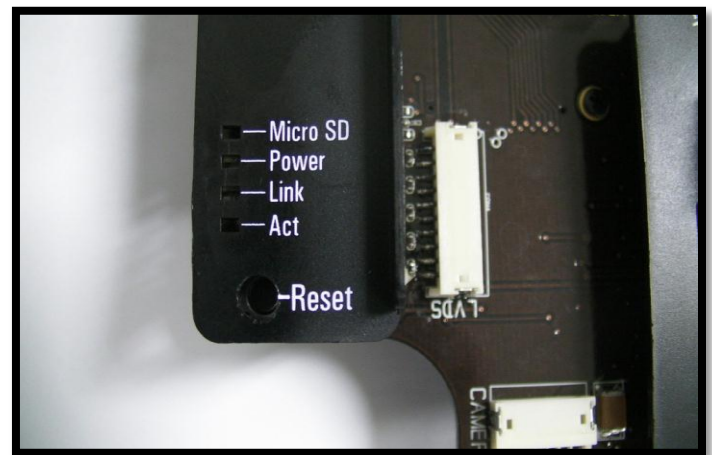
* Frequent use may cause system error.

WEBVIEWER*

Remote Video Monitoring Via Internet Explorer

Monitor and configure the MEGAPIX camera through a built-in web viewer.

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 **ActiveX Control**. Once it has been installed, Internet Explorer will display video images from the camera.
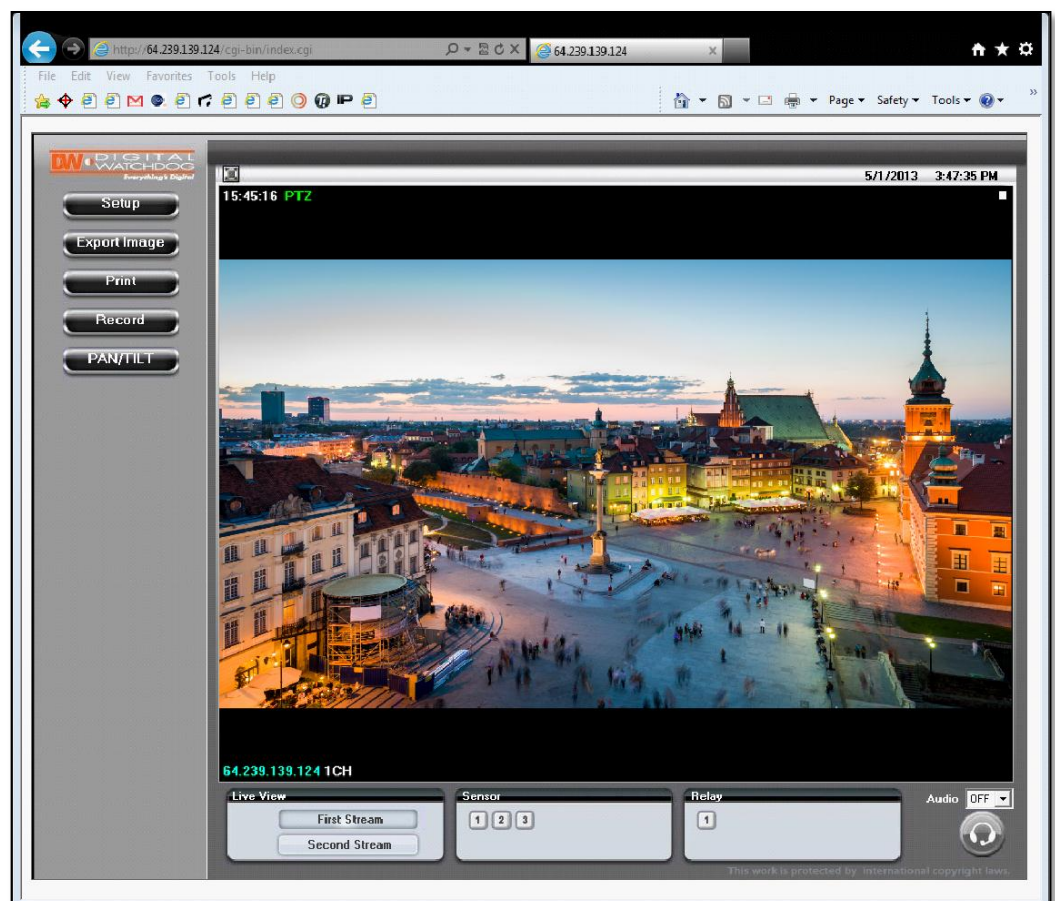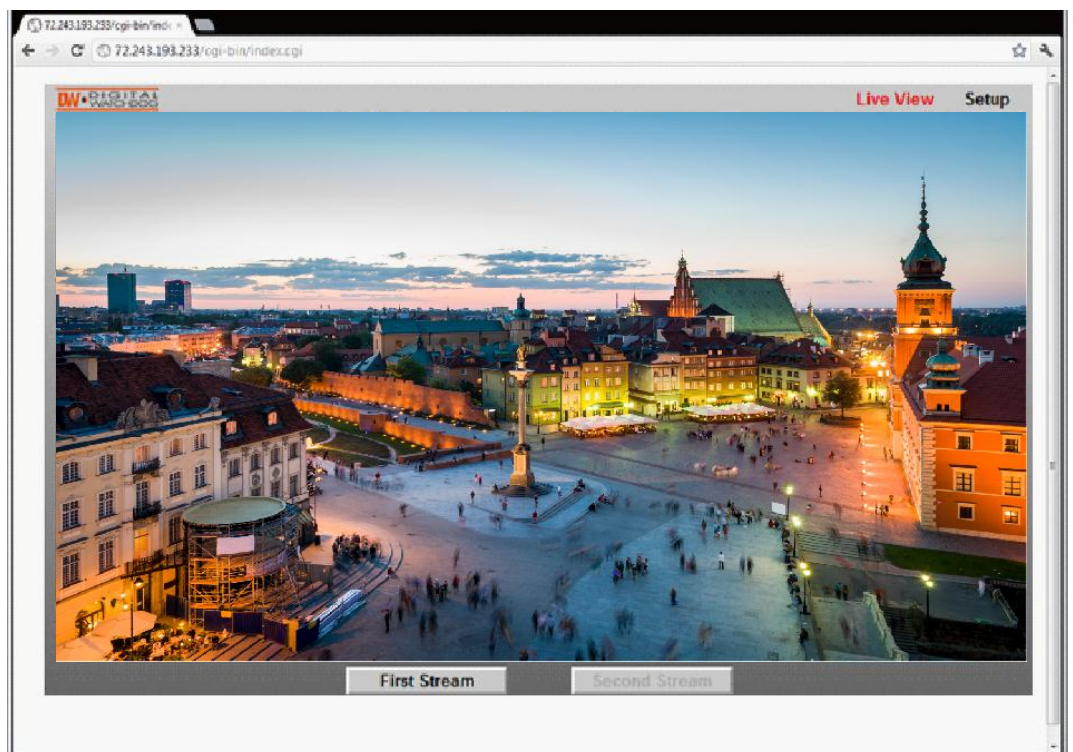
WEBVIEWER*

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. If the first stream is set to H.264; then a video will not be displayed on the GUI.

3. Click the **Setup** button located at the top right of the page. Then go to **Video > Stream Settings**.

4. Modify one of the two (2) streams to the codec **MJPEG**.

5. When you are finished modifying the streams, click **Apply** and **Reload** to make sure all changes have been saved and your camera has been rebooted.

6. Click on **Live View** 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 begin streaming video.

WEBVIEWER*

GUI Description

Main Display Area

Alarm Status

Camera's Name

Camera's Date & Time

Full Screen Mode

Time

Access Setup Menu

Export Camera's Current Display as JPEG

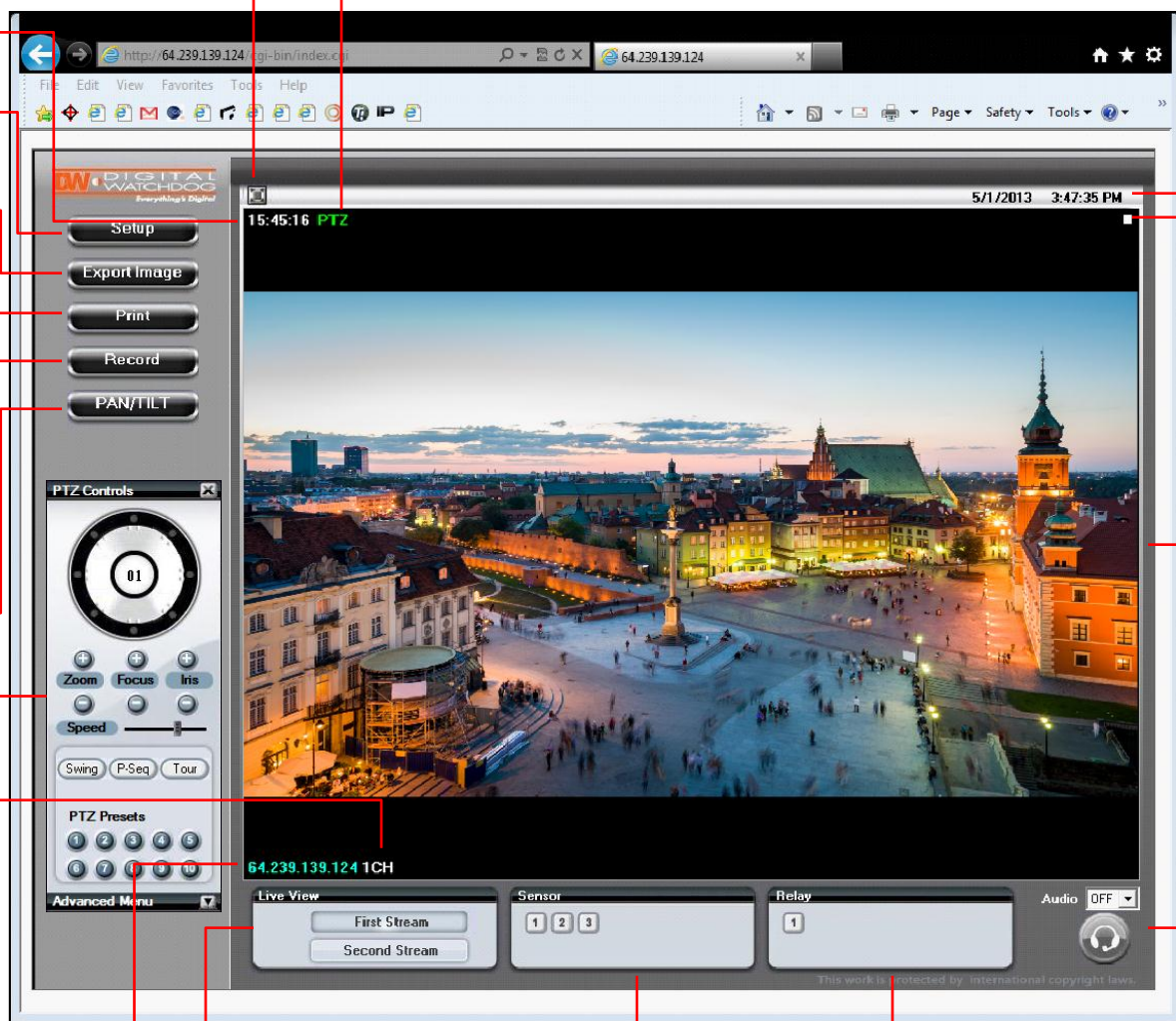Print Camera's Current Display

Start/ Stop Panic Recording

Show/ Hide PTZ Virtual Controller

PTZ Virtual Controller

Stream's Name   Camera's IP Address   Stream Control   Sensor Control   Relay Control   2-Way Audio Control
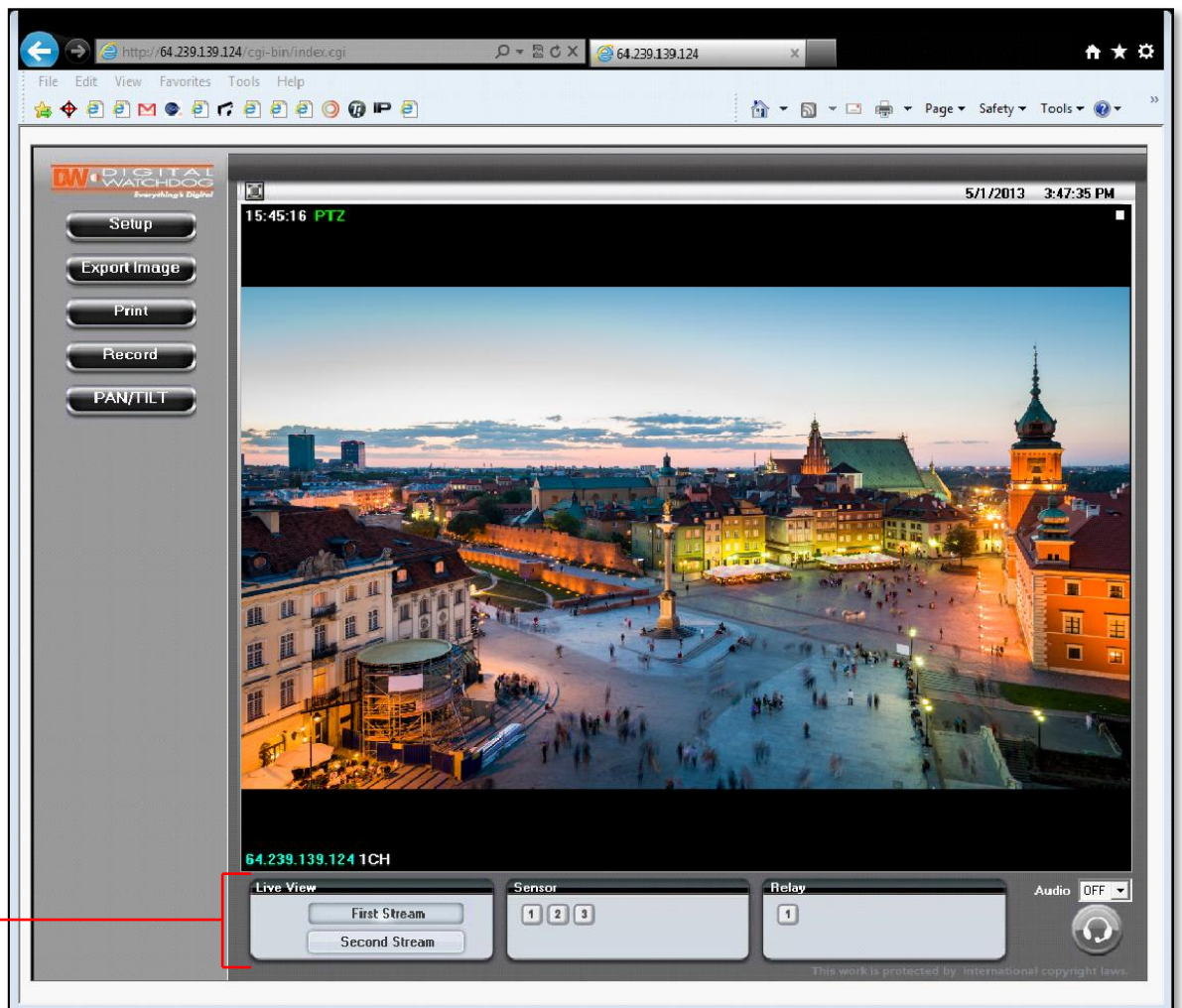
WEBVIEWER*

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 42.
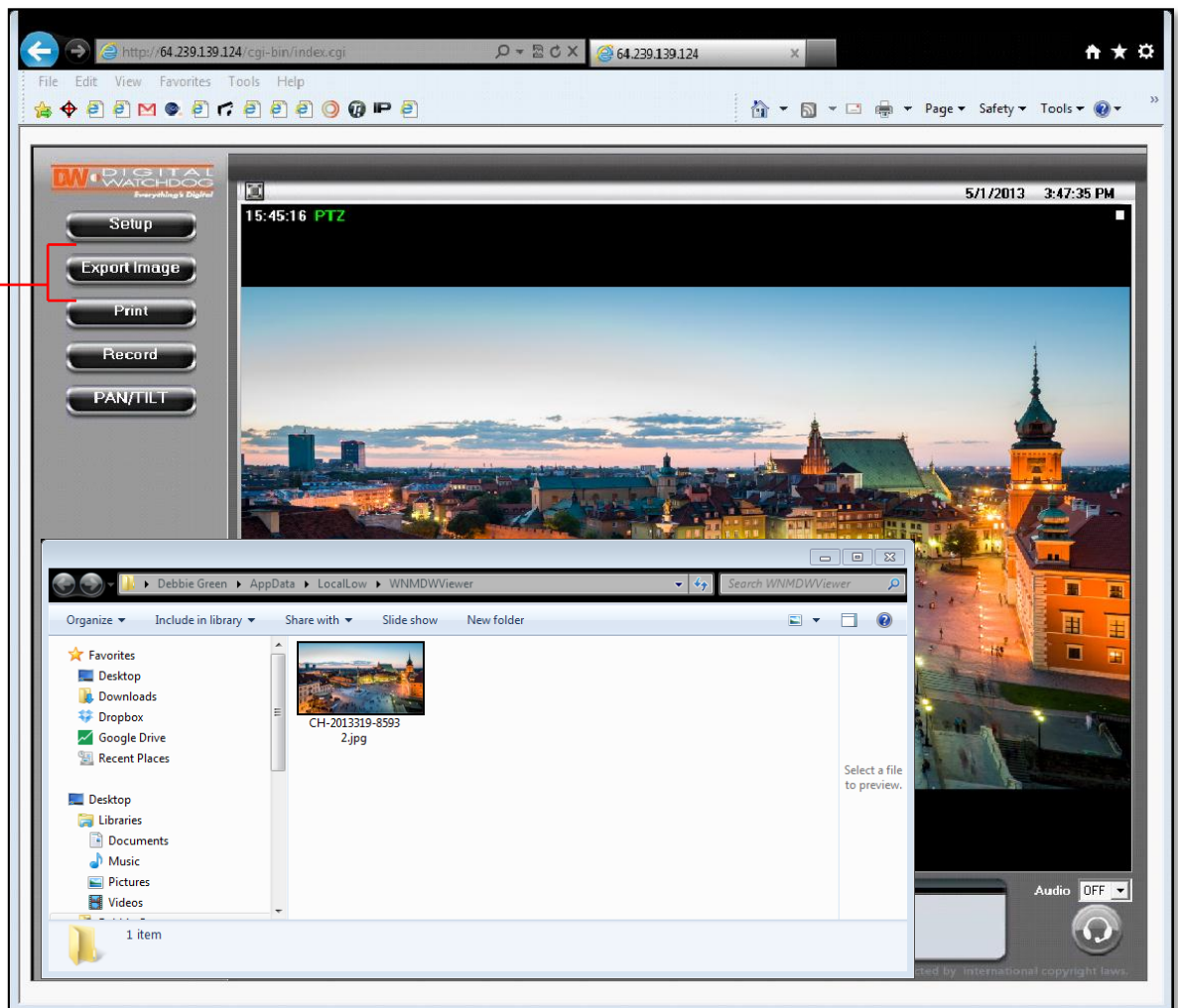

[Streams Selection]

WEBVIEWER*

Export Image

Export a screenshot of the current live video to your computer.

1. Click **Export Image** button located on the left. "Save As" window will appear.
2. A .jpg image will automatically be stored under a WNMDWViewer folder.
3. The image's name will include the camera's IP address, Channel name, and date and time.

[Export Image]

WEBVIEWER*

Print Image

Print a screenshot of the current live video.

1. Click **Print** button, and the **Print Preview** window will appear.

2. Scale the size of the screenshot or adjust the orientation of the screenshot.

3. To print the information about the screenshot, select **View Title**. To add a memo for the screenshot, click **Page Option**.

4. Go to **Printer Setup** to select the printer and manage the printer properties.

5. Select **Print** to print the page, or **Close** to cancel the print.

[Print Image]
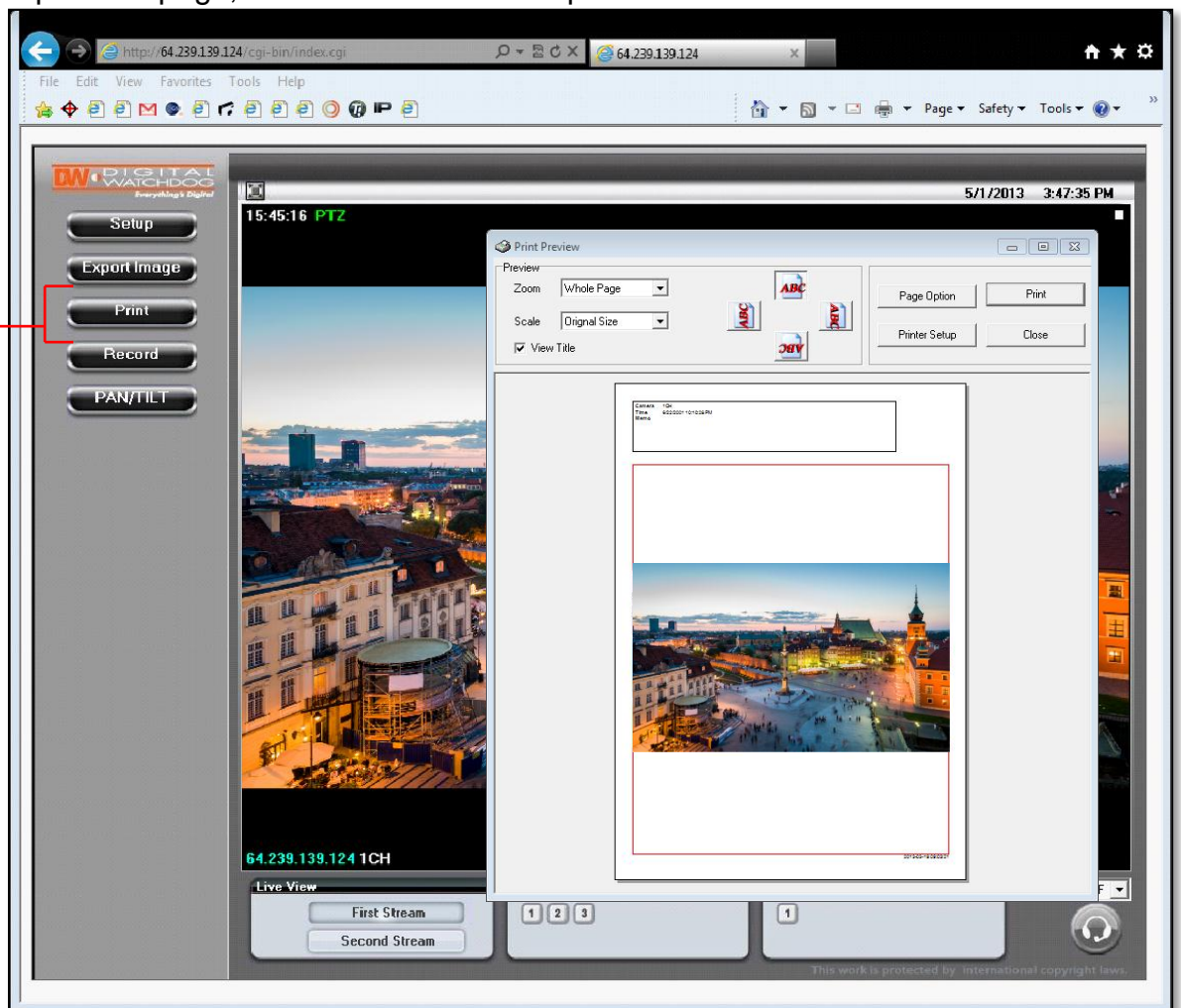
WEBVIEWER*

Instant Recording

Record live video to your local drive.

To Setup Instant Recording

1. Click on the **Record** button located to the left of the Webviewer.
2. Setup 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.


[Local Recording]
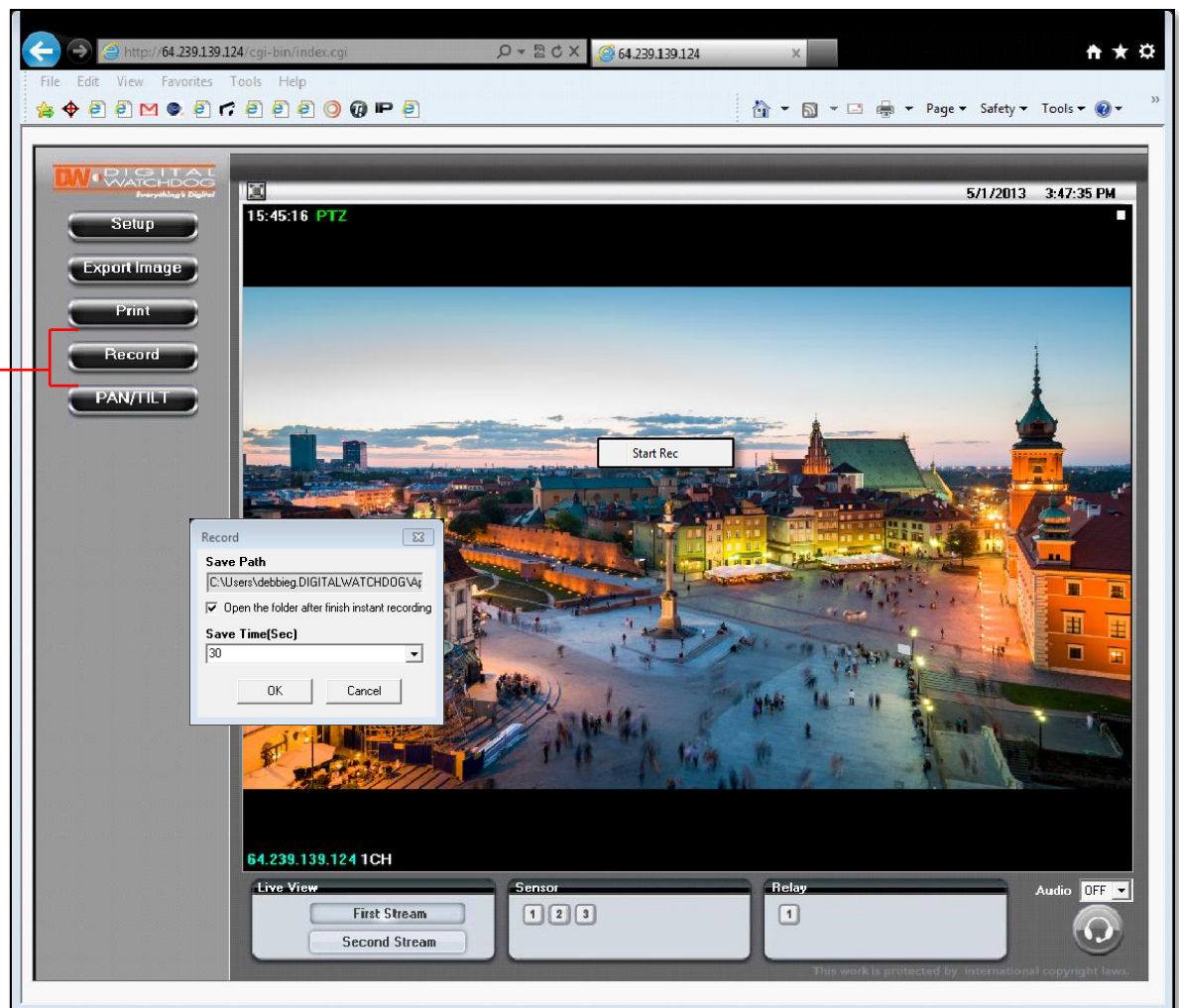
WEBVIEWER*

Instant Recording

Record live video to your local drive.

To Start and Stop Instant Recording

1.   To Start, right-click anywhere on the display screen.

2.   Click on **Start Rec**. The icon on the top right of the screen will change to **INSTANT**.

3.   To Stop, right-click anywhere on the display screen.

4.   Click on **Stop Rec**. The video will be displayed in the designated folder when recording is complete.
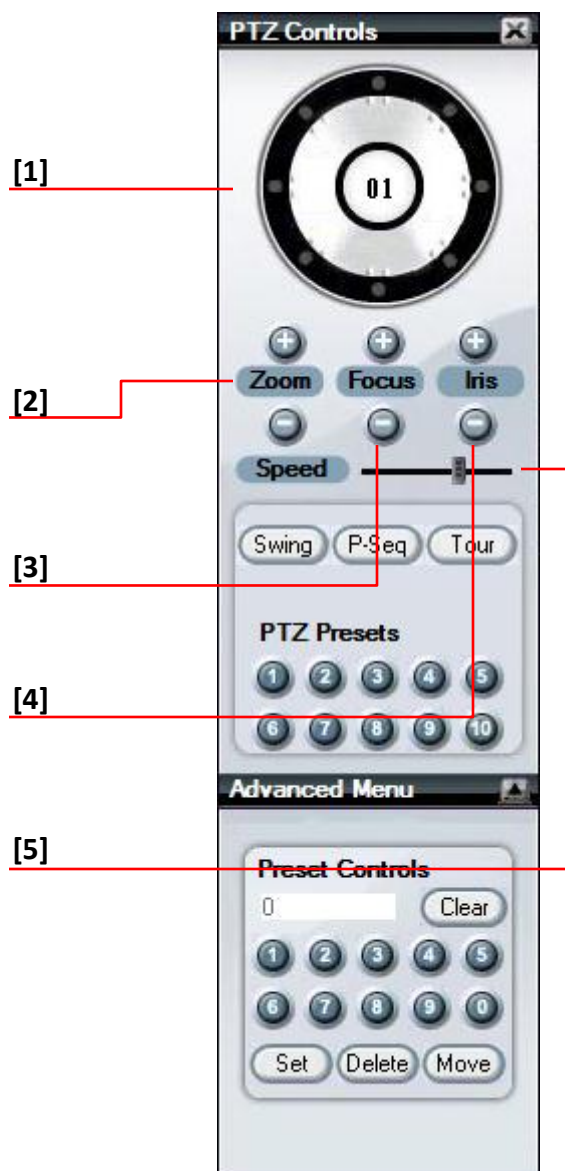
[Local Recording]
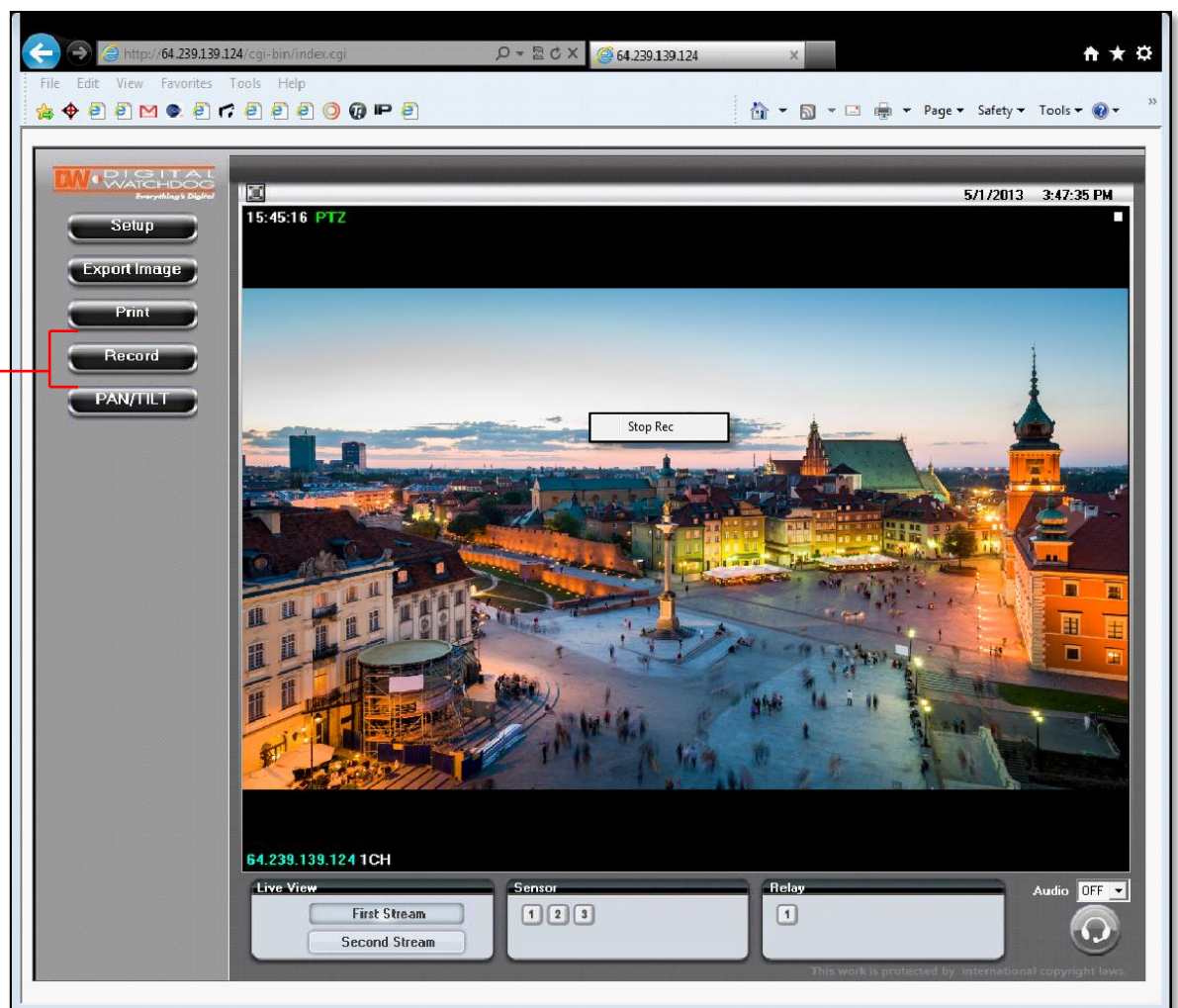
WEBVIEWER*

Controlling the Camera using the Virtual Joystick

Use the different buttons in the Pan/ Tilt Controller to adjust the camera's position, zoom and focus, and control the camera's PTZ functions.

To control the Camera's Pan, Tilt, and Zoom:

1. Pan Tilt Buttons- The Pan-Tilt wheel enables you to move the camera in eight (8) directions by clicking and holding with your mouse's left button on the corresponding button. **[1]** The direction of each button depends on its location on the wheel. For example, pressing the central upper button will move the camera UP. To stop the camera's movement, release the mouse' button.

2. Zoom Control Button- The Zoom ratio of the camera can be controlled by using the '+' and '-' buttons. Press the '+' to **[2]** make the camera zoom into the center of the image. Press '-' to make the camera zoom out to the full field of view.

3. Focus Control Button- The focus of the camera can be controlled by clicking '+' or '-' button. Please note: If 'Focus **[3]** Mode' in the Camera's Setup Menu is 'Auto', the Focus cannot be changed manually.

4. Iris Control Button- Iris control button. The iris of the camera **[4]** can be controlled by clicking '+' or '-' button.

5. Speed Control Button- The pan-tilt speed can be controlled by clicking on the Speed bar and moving it left and right. **[5]** Move the speed bar to the left to reduce the camera's speed. Move the speed bar to the right to increase the camera's speed.
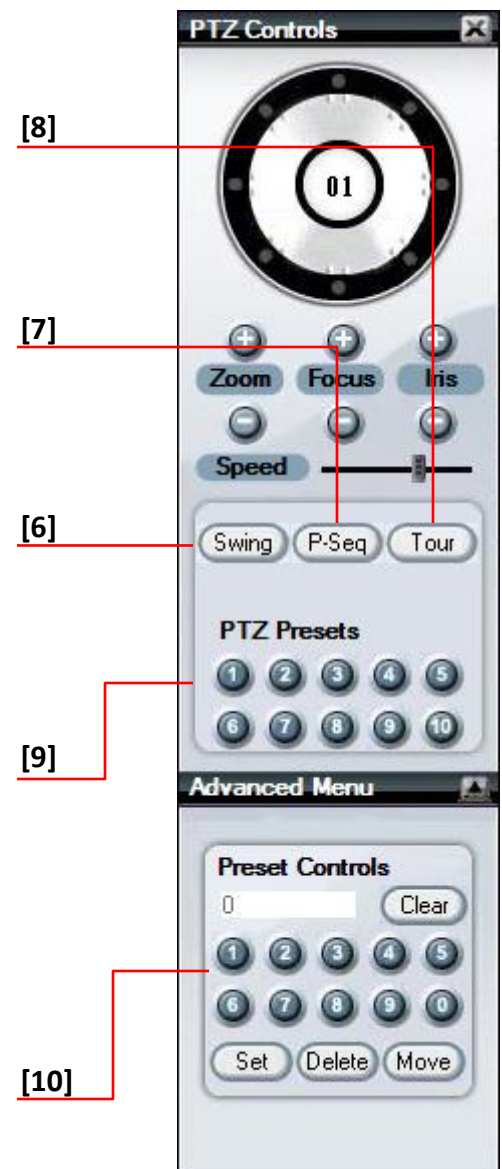
WEBVIEWER*

Controlling the Camera using the Virtual Joystick

Use the different buttons in the Pan/ Tilt Controller to adjust the camera's position, zoom and focus, and control the camera's PTZ functions.

To control the Camera's Pan, Tilt, and Zoom

6.   Swing Button- The Swing button enables you start and stop any of the previously set Swing commands. When the swing function runs, the camera moves between two (2) assigned positions based on the direction set by the user*   **[8]**

7.   P-Seq Button- the Preset Sequence button allows you to start and stop any previously set Preset Sequence commands. A Preset Sequence is a group of presets ran in order, with the camera moving from one preset to the next according to the order and dwell time set by the user.*   **[7]**

8.   Tour Button- the tour button allows you to start and stop any of the previously set tour commands. The Tour function allows users to run sequences of presets and swings. Each tour can have a maximum of 20 action.*   **[6]**

9.   Presets buttons- the numeric buttons 1-10 allow you to send the camera to a specific preset previously setup. Press the preset number to move the camera to that position.*
To move the camera to a saved preset from the main viewer: **[9]**

 a. Select the Preset's number from the available buttons.

 b. To activate presets higher than 10, expand the Advanced Menu option and use the numeric buttons to select a preset.

 c. Select to move the camera to a preset, set the preset to current position, or delete the preset.

10. Advanced Menu- Use the Advanced Menu to delete, set and move presets, as well as activate all 4 Sequences, 8 Groups and Swings. *   **[10]**

* See pages 53-58 for more information on how to setup presets, swings, sequences, and tours.

WEBVIEWER*

Setup > Video > 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. The compression type affects the image quality, bandwidth, and file size of saved images. MJPEG, the lowest Compression type, will provide the highest image quality, but also will cause the image size to be the largest, and take up the most bandwidth.
4. Data Transfer Speed- Set encoding bitrate if H.264 and MPEG4 compression type is selected.
5. Frame-rate- 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*

Setup > Video > Color Settings

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

White Balance: Also known as Color Balance. This gives the camera a reference to "true white." White Balance is used to make colors appear the same in the Field of View (FoV) no matter what is the light temperature of the light source. Select from Auto, or Manual.

If AUTO is selected, the camera will automatically adjust itself to the proper white balance.

If MANUAL is selected, adjust the following values:

- White Balance Red Offset- select from 0~255 range. The lower the number, the image will appear green. The higher the number, the image will appear red. Default value is 210.

- White Balance Blue Offset- select from 0~255 range. The lower the number, the image will appear yellow. The higher the number, the image will appear blue. Default value is 160.

Select: 'Apply' to save changes, 'Reload' to return to the last saved settings,

or 'Default' to return all settings to their factory default values.

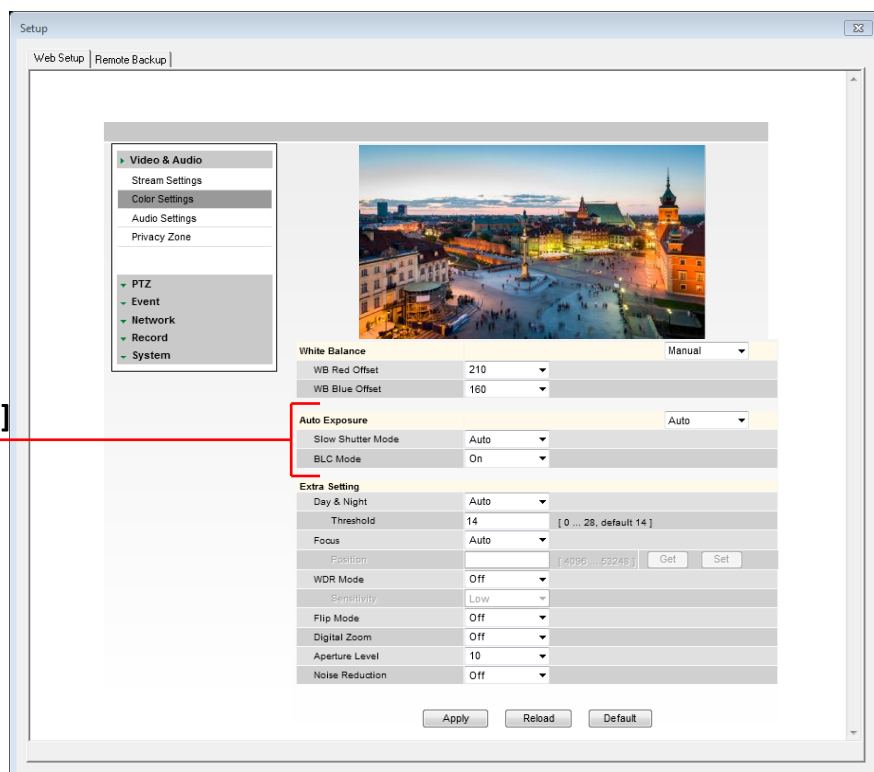[White Balance Settings]
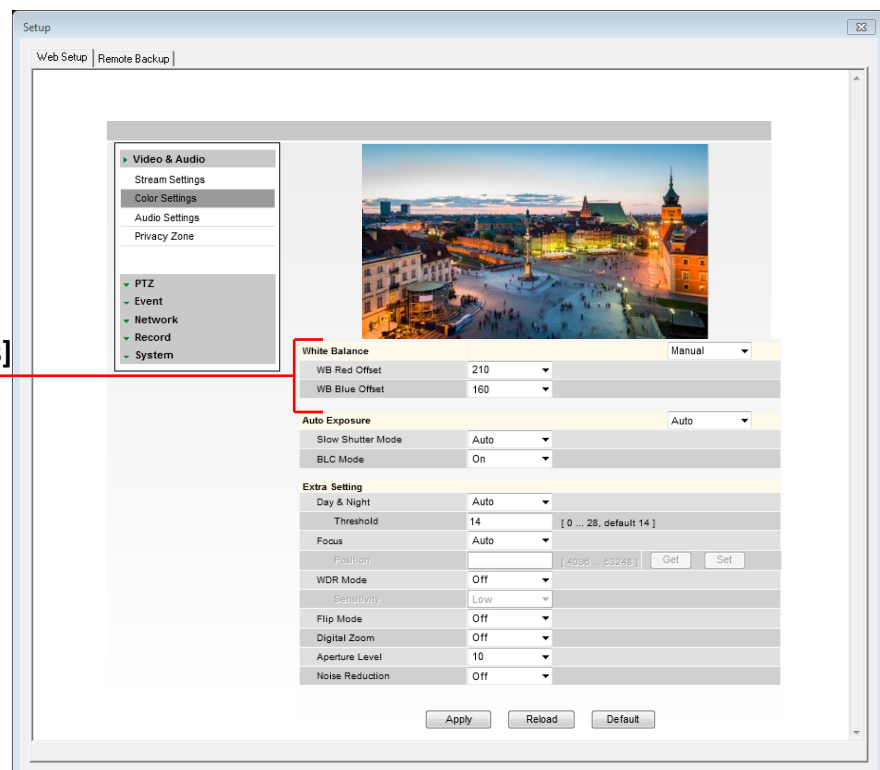
WEBVIEWER*

Setup > Video > Color Settings

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

Auto Exposure: Set Brightness, Slow Shutter Mode, Shutter Speed, Gain, Iris, and BLC Mode. By default, the Auto Exposure settings are set to Auto.

- If **Auto** is selected: Adjust the Slow Shutter and BLC Modes.
- If **Manual** is selected: Adjust the Slow Shutter Mode, Shutter Speed, Gain, and Iris.
- If **Shutter** is selected: Adjust the Slow Shutter Mode and Shutter Speed.
- If **Iris** is selected: Adjust the Slow Shutter Mode and Iris.
- If **Bright** is selected: Adjust the Slow Shutter Mode and Brightness (Note: Day/ Night mode will be set to Day (color) by default.
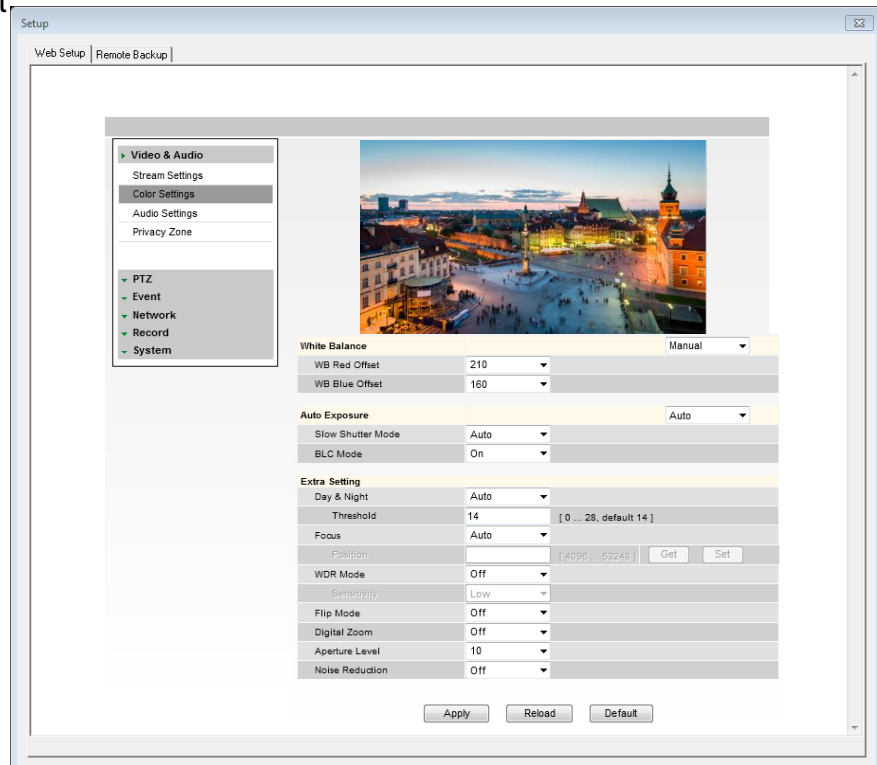

[Auto Exposure Settings]

WEBVIEWER*

Setup > Video > Color Settings

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

Auto Exposure:

1. <u>Slow Shutter Mode</u>- Slow shutter mode decreases the shutter speed in low light to improve the image quality. Turn to AUTO or Off. Default setting is AUTO. If the shutter mode is set to auto, shutter speed is automatically set to match the environment's lighting settings.

2. <u>BLC Mode</u>- Select to enable or disable Backlight Compensation to adjust the image in harsh lighting environments. Enable this option if there is a bright spot of light in the camera's FoV that may cause other areas to appear too dark. Default setting is OFF.

3. <u>Shutter Speed</u>- Set the amount of light allowed in the video from the different speeds available. The larger the value (1/1) the brighter the image will appear. The smaller the value (1/10000) the darker the image will appear. Default value is 1/30.

4. <u>Brightness</u>- Select from 0 (darkest) to 31 (brightest). Default value is 17.

5. <u>Gain</u>- Maximum light gain settings in low light conditions. Select from -3dB (least light) to 28dB (most light). Default value is 6dB.

6. <u>Iris</u>- The Iris of the camera can be controller manually by selecting a value from the drop-down menu. The higher the number (F1.4), the darker the image. Default value is F1.6.

7. Select 'Apply' to save changes, 'Reload' to return to the last saved settings, or 'Default' to return all settings to factory default values.
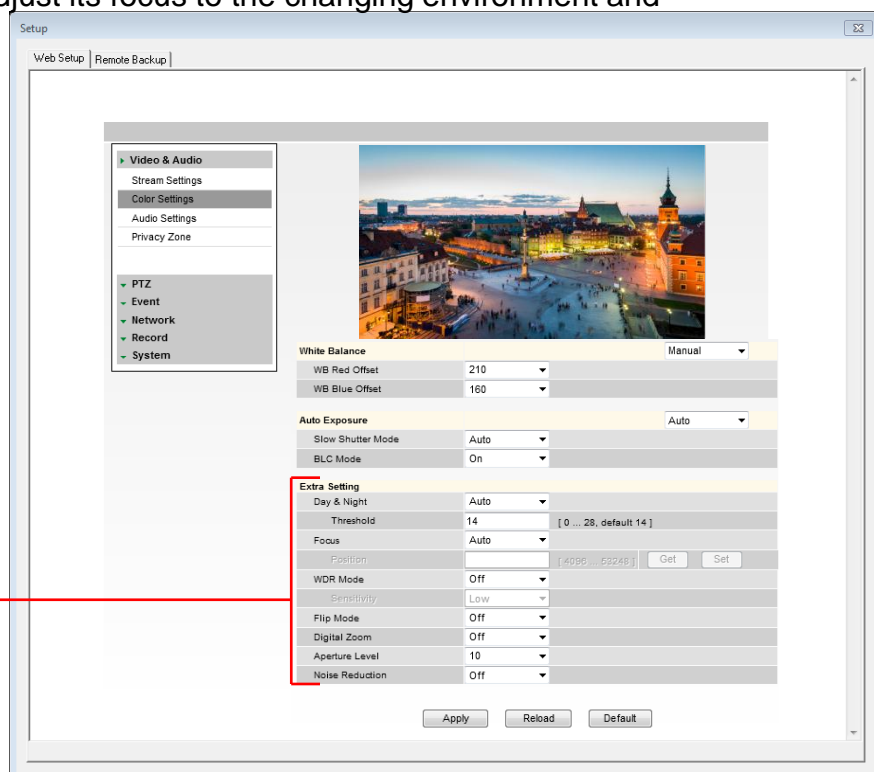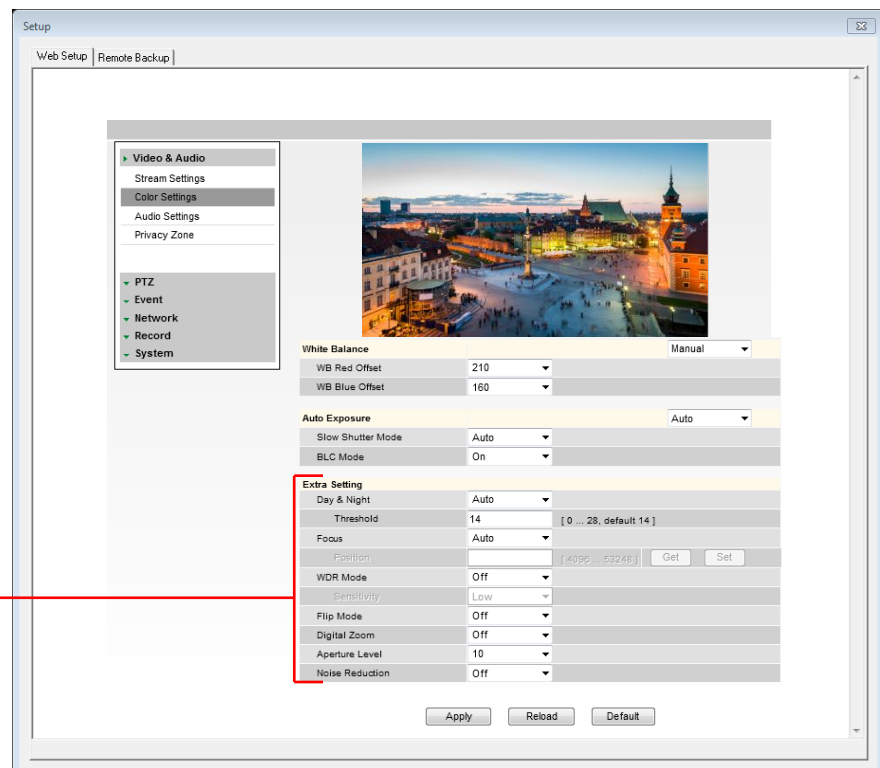
WEBVIEWER*

Setup > Video > Color Settings

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

Extra Settings: control the camera's Day & Night Mode, Focus, WDR, Flip, Digital Zoom, Aperture Level, and Noise Reduction.

1. Day & Night- Set the mode to Night (B/W), Day (Color), or Auto. If set as Auto, set the threshold value. This value represents the stage at which the camera switches between B/W and Color. Select from 0-28. The lower the number, the darker the scene will have to be for the camera to transition from color to B/W mode.

2. Focus- select whether the camera's focus adjusts automatically, or set the focus point of the camera manually. If manual is selected, you will have to manually enter the point of focus for the camera in relation to the edges of the FoV. It is highly recommended to set the Focus option to Auto, allowing the camera to adjust its focus to the changing environment and preventing blurry image.

3. WDR [Wide Dynamic Range]- the Wide Dynamic Range feature allows you to improve the exposure of the camera when there are extremely bright and extremely dark areas in the VoF of the camera. Set the WDR levels to Off, On, or Auto. Default WDR value is OFF. If WDR is set to On, the WDR will work at the camera's default value. If Auto is selected, you can manually adjust the level of WDR from: Low, Mid, or High.

[Extra Image Settings]

46

WEBVIEWER*

Setup > Video > Color Settings

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

Extra Settings: control the camera's Day & Night Mode, Focus, WDR, Flip, Digital Zoom, Aperture Level, and Noise Reduction.

4. Flip- Select On or Off to flip the image upside down.

5. Digital Zoom- enable or disable the camera's 32x Digital Zoom option. This is different from the camera's Web Viewer zoom and enables the camera to zoom in digitally further more once it's zoomed to the max 20x Optical zoom.

6. Aperture level- Select the amount of light admitted by the camera's lens. Adjust the aperture level from 0- 15. the higher the number, the more light will be admitted by the camera, and the sharper lines in the image will appear. Default is 10.

7. Digital Noise Reduction- Control the level of noise in the image. Select from Off, Level 1 – Level 5. The higher the level, the more the camera will manipulate the image to reduce digital noise, but it will also increase lagging when motion occurs.

8. Select Apply to save changes.

[Extra Image Settings]

WEBVIEWER*

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 Web Viewer, 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.
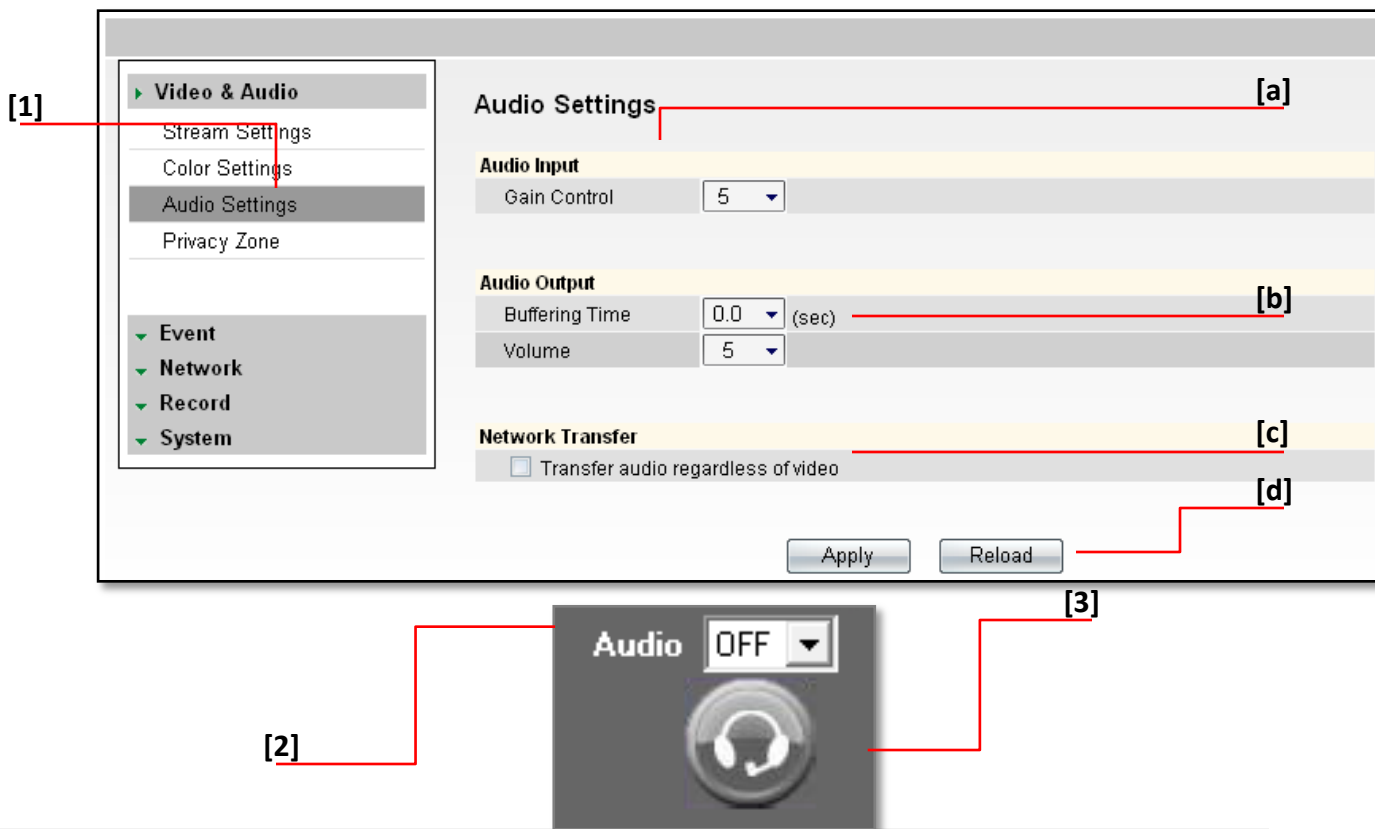
WEBVIEWER*

Setup > Video > Privacy Zone

The MEGAPIX camera offers up to 24 privacy zone settings. To set Privacy Zones:

1. Move the camera to the position where you would like to setup a privacy masking.
2. Select the masking zone you would like to setup from the number drop-down options. If a privacy zone has not been setup previously, [Undefined] will appear next to the zone's number.
3. Adjust the zone's size by selecting a value from the drop down menus.
   a. Select the **Width** of the mask. Values range from 1- 30. if 30 is selected, the mask will be the width of the camera's entire FoV.
   b. Select the **Height** of the mask. Values range from 1- 30. if 30 is selected, the mask will be the height of the camera's entire FoV.
4. The privacy masking by default will be set to the center of the FoV and will be gray.
5. Press **Set** to apply the mask to the camera's view.
6. Press **Delete** to delete current mask.
7. Press **Reload** to display the last saved settings.
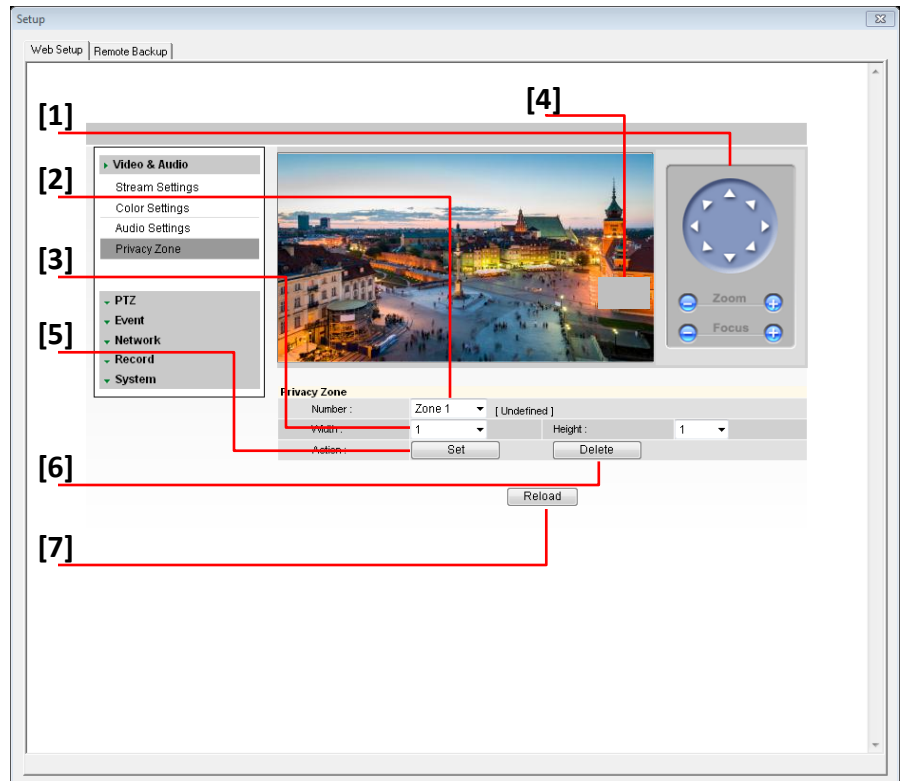
WEBVIEWER*

Setup > PTZ> Basic

Use the MPTZ20X's PTZ basic settings menu to adjust the features related to the camera's speed, home action and zoom and focus.

Speed

1. Set the camera's Pan speed by seconds. Select from the drop-down menu value between 1 and 200. Default is 40.*

2. Set the camera's Tilt speed by seconds. Select from the drop-down menu value between 1 and 200. Default is 40.*

3. Set the camera's Zoom speed. Select from the drop-down menu value between 1 and 8. The higher the number the faster the camera will zoom in and out. Default value is 8.

4. Set the camera's Focus speed. Select from the drop-down menu value between 1 and 8. The higher the number the faster the camera will focus on command. Default value is 8.

[Speed Settings]
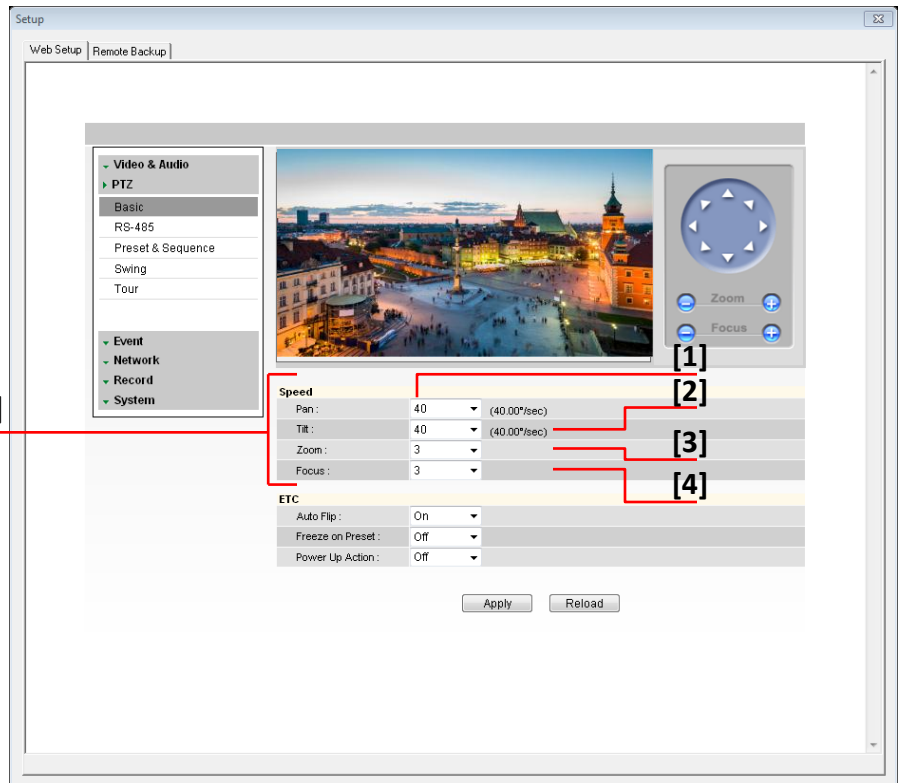
*The values for both the Pan and Tilt speed are the number of degrees the camera will travel per second. For example, at the default value, the camera will travel 40°/ Sec when controlled by the user.

WEBVIEWER*

Setup > PTZ> Basic

Use the MPTZ20X's PTZ basic settings menu to adjust the features related to the camera's speed, home action and zoom and focus.

ETC

5. <u>Auto Flip</u>- When the tilt angle arrives to the top of tilt orbit (90°), zoom module camera continues moving opposite of the tilt direction (180°) to continue tracing targets. If Auto Flip is enabled, when the zoom module camera passes through the top of the tilt direction (90°), images should be reversed automatically. Default is ON.
6. <u>Freeze on Preset</u>- If enabled, the camera will freeze on a preset rather than who live image. If Freeze on Preset is on while a tour is on, user will not see the camera's movement, only the presets during dwell time. Default if OFF.
7. <u>Power Up Action</u>- If power up action is set to be on, camera will continue the function which is executed lastly after rebooting. Default is OFF.

[Etc. Settings]
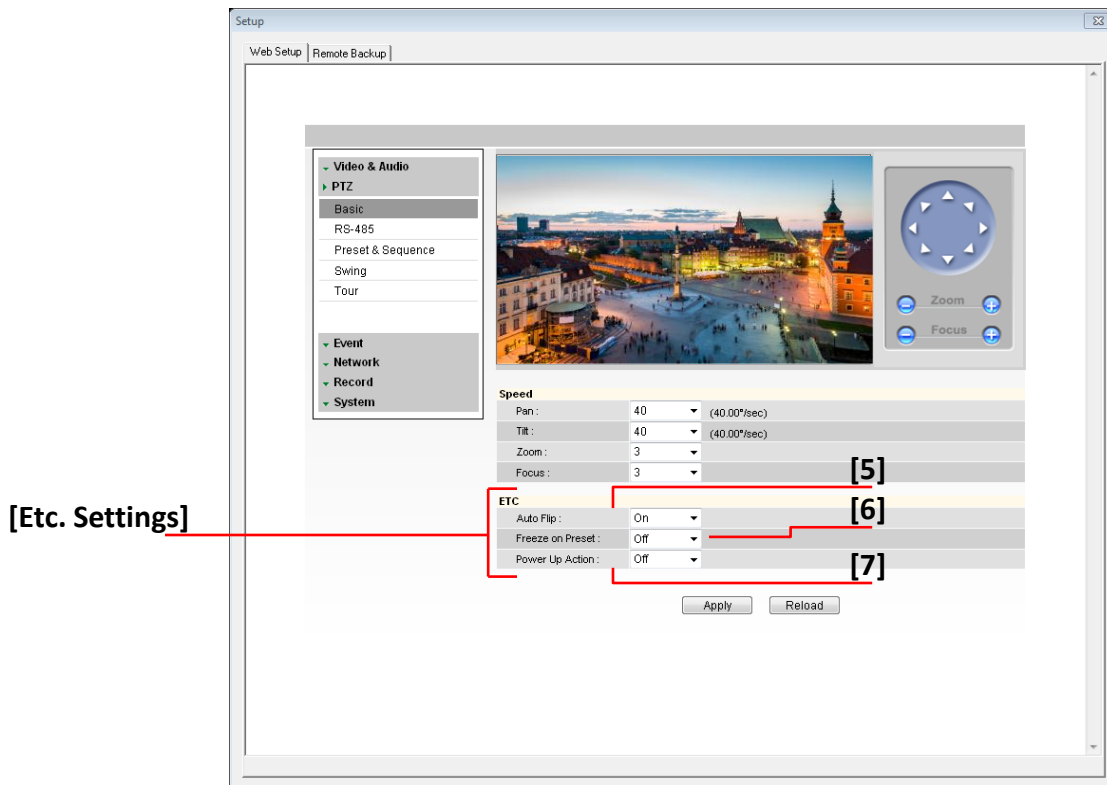
WEBVIEWER*

Setup > PTZ> RS-485

The MPTZ20X camera offers both network and RS-485 communication options. This allows the camera to communicate with other devices, such as: Joystick Controller, PTZ Remote Controlling, Alarm Sensor, etc.

1. Baudrate- Select the camera's Baudrate from the drop-down values: 2,400, 4,800, 9,600, 192,000, and 38,400 bps. The Baudrate may vary depending on the distance and Baudrate of the device to which the camera is connected. The default Badrate of the camera is 2400.
2. Data-bit- Select from the drop-down values between 5-bit and 8-bit. Default is 8-bit.
3. Stop-bit- Select from the drop-down values between 1-bit and 2-bit. Default is 1-bit.
4. Parity-bit- Select from the drop-down values: None, Even, Odd. Default is None.
5. Protocol- Select the protocol as Pelco-D or Pelco-P. The protocol set in the camera must be identical in the external device you are connecting to the camera. Camera's Default protocol is Pelco-D.
6. Address- Set the camera's address for communication with external devices. The camera's address must match the ID set in the external device. Select from the value range of 1-255. Default Camera Address is 1.
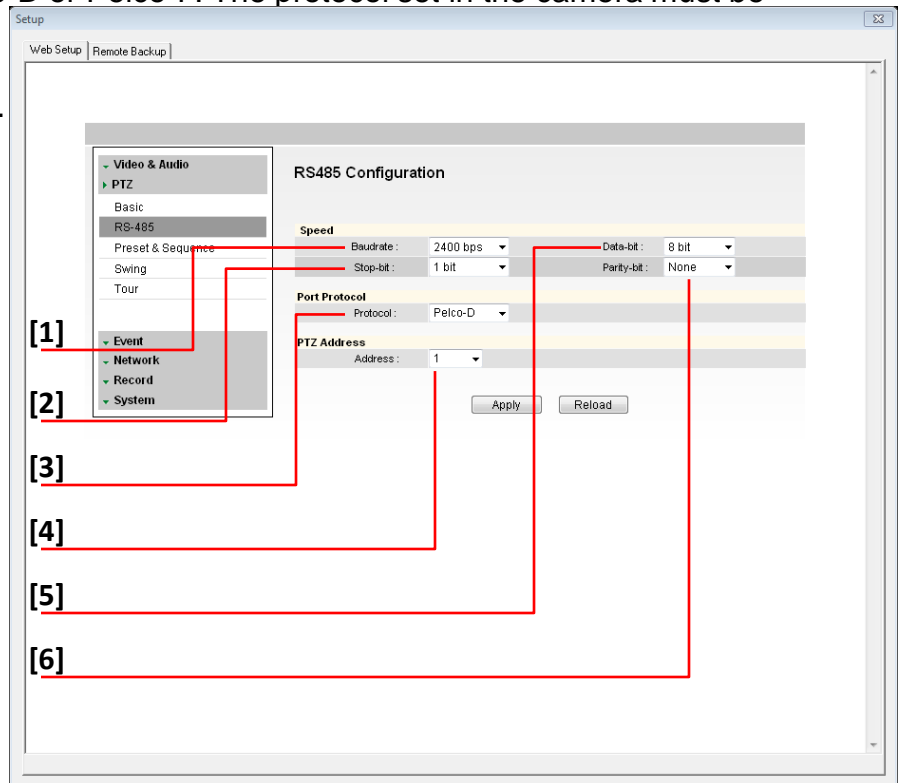
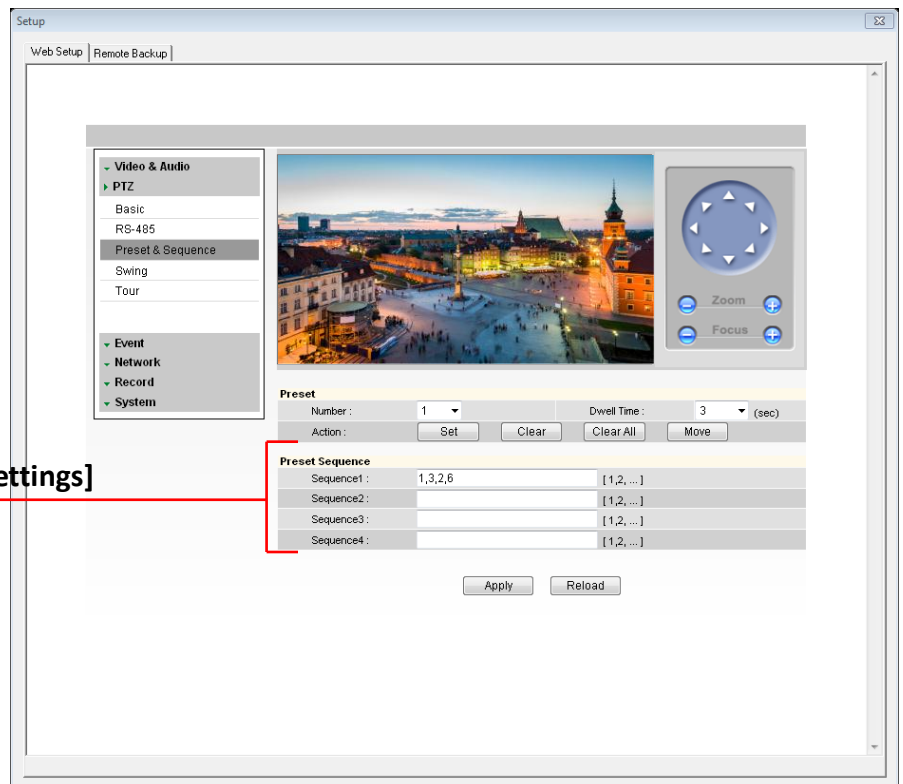# WEBVIEWER*

Setup > PTZ> Preset & Sequence

Configure and modify the camera's Presets. The MPTZ20X supports up to 255 different presets. A Preset is a unique command users can assign the camera. To configure the camera's Presets:

1. Select the preset # you would like to set or modify from the drop down menu. If a preset has not been setup previously, [Undefined] will appear next to the preset's number.
2. Using the virtual joystick next to the camera's preview screen, move the camera to the position you would like to associate with the selected preset.
3. When the camera is positioned at the desired location for the preset, press the 'Set' button to save that location to the selected preset.
4. Select the Dwell time. This value indicates how long the camera will remain on the preset before moving to the next one during a sequence. Select from 1 to 60 seconds. Default is 1.
5. Select 'Clear' to delete a preset's position.
6. Select 'Clear All' to delete all the previously set presets.
7. Select 'Move' to move the camera to a preset selected from the drop-down menu. If the camera has [Unidentified] next to the Preset's number, Move function will be disabled.
8. Click 'Apply' to save the changes.*
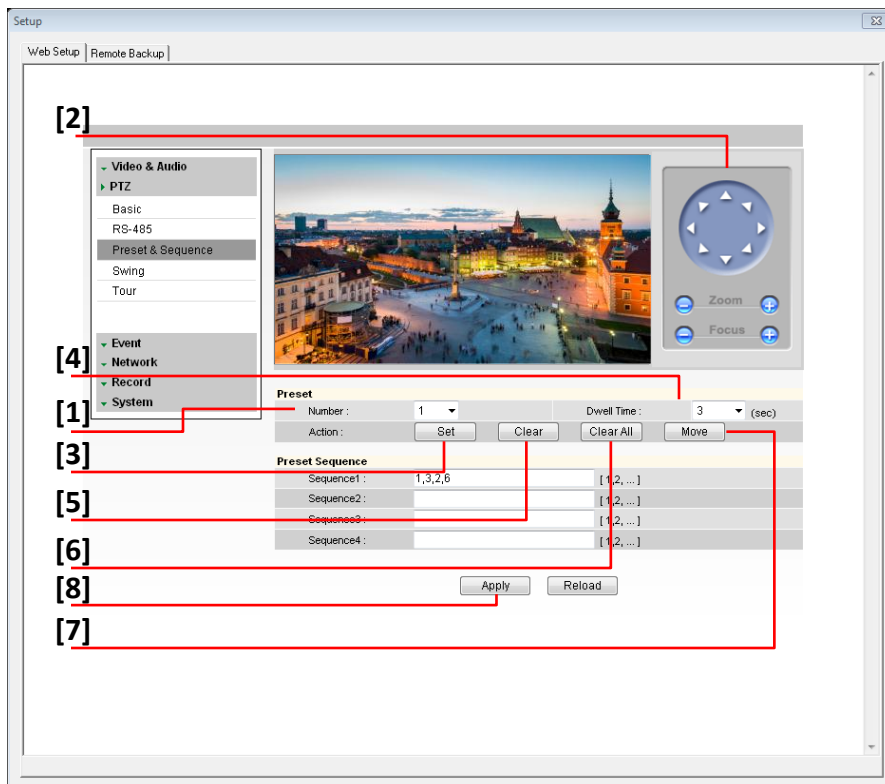
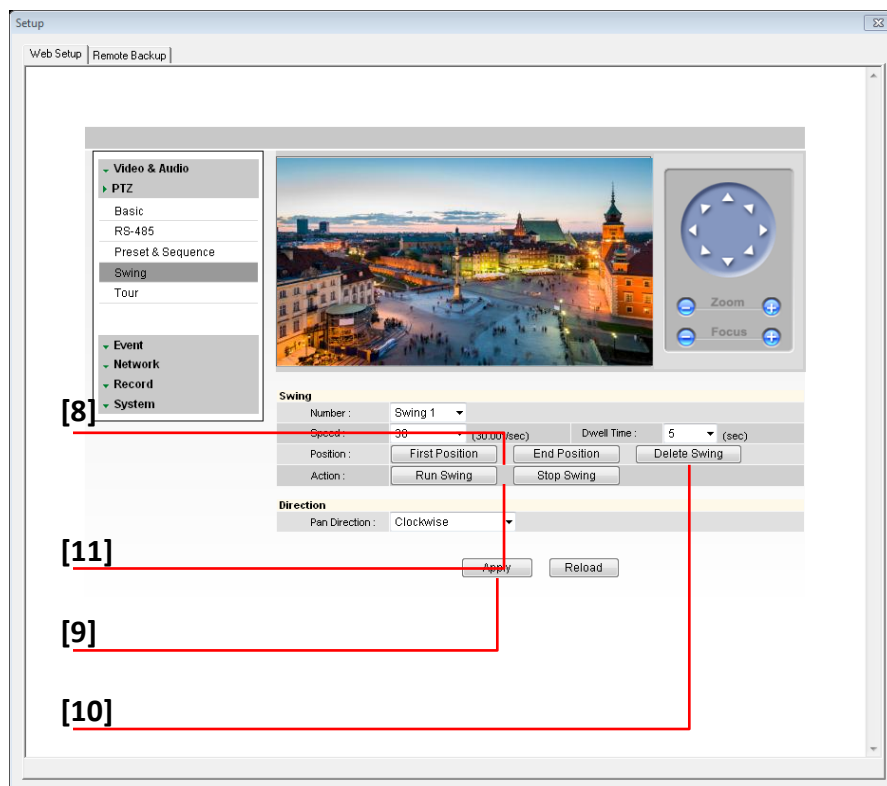
* See page 41 for more information on how to control presets from the camera's main viewer page.

WEBVIEWER*

Setup > PTZ> Preset & Sequence

Use this setup menu to configure and modify the camera's Preset Sequences. The MPTZ20X supports up to 4 different Sequences. A Sequence is a group of presets ran in order, with the camera moving from one preset to the next according to the order and dwell time set by the user. To configure the camera's Sequence:

- Enter the Preset numbers in the corresponding Sequence space, separating the presets with a comma (,).* The order in which you enter the presets is the order in which the camera will use to run the sequence.

- Use the dwell time to determine how long the camera will stay on each preset before moving to the next preset. See page 53 for more information.

- See page 41 for how to control Sequences from the camera's main viewer page.

[Preset Sequence Settings]

* You must have at least two (2) presets set to properly setup a Sequence.

WEBVIEWER*

Setup > PTZ> Swing

Use this setup menu to configure and modify the camera's Swing feature. When the swing function runs, the camera moves between two (2) assigned positions based on the direction set by the user. The camera supports up to 8 different Swing patterns. To setup a Swing:

1. Select the Swing# you would like to set or modify from the drop down menu. If a Swing has not been setup previously, [Undefined] will appear next to the Swing's number.
2. Using the virtual joystick next to the camera's preview screen, move the camera to the position you would like to set as the 'First Position'.
3. When the camera is positioned at the desired beginning position, press the 'First Position' button to save that location.
4. Repeat steps #2 and #3 to set the Swing's 'End Position'.
5. Press 'Delete Swing' to delete a previously set Swing.
6. Set the speed in which the camera will travel between the positions from the drop down menu. Available range is from 1 to 180.*
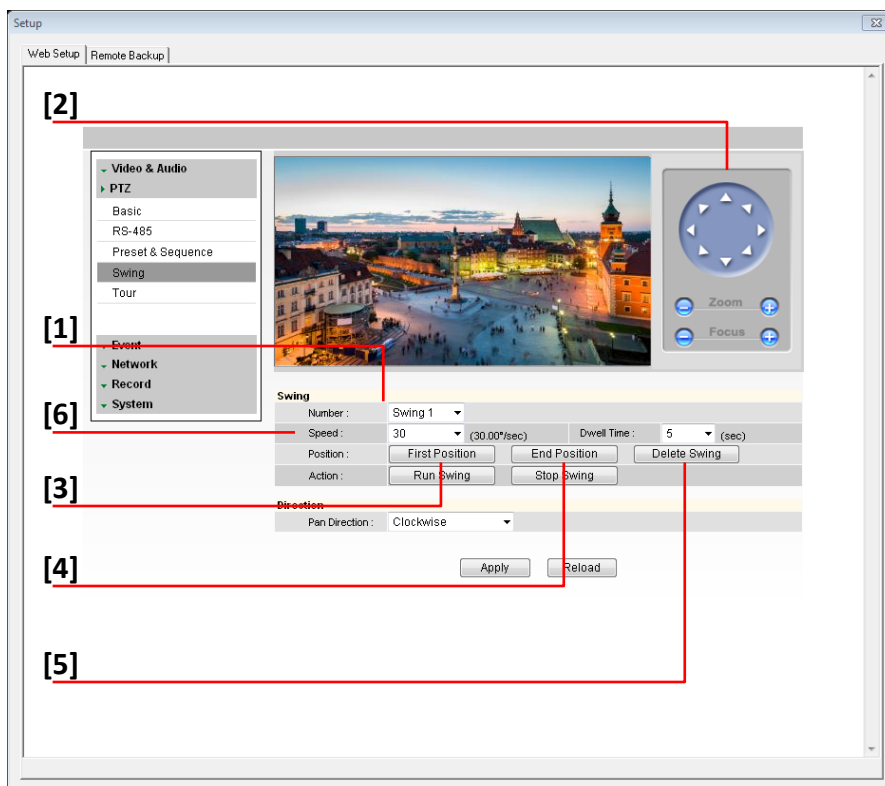
* The values are the number of degrees the camera will travel per second. Default is 30. For example, at the default value, the camera will travel 30°/ Sec between positions.

WEBVIEWER*

Setup > PTZ> Swing

Use this setup menu to configure and modify the camera's Swing feature. When the swing function runs, the camera moves between two (2) assigned positions based on the direction set by the user. The camera supports up to 8 Swing patterns. To setup a Swing:

6. Select the **Dwell time**. This value indicates how long the camera will remain on each position before moving to the next position. Select from 1 to 60 seconds. Default is 1.

7. Select the **direction** of movement. Default is Shortest.

    a. If **shortest** is selected, the camera will move from First Position to End Position and back in the shorted available path.

    b. If **Clockwise** is selected, the camera will move from First Position to End Position Clockwise and from End Position to First Position Counter-Clockwise.

    c. If **Counter- Clockwise** is selected, the camera will move from First Position to End Position Counter-Clockwise and from End Position to First Position Clockwise.
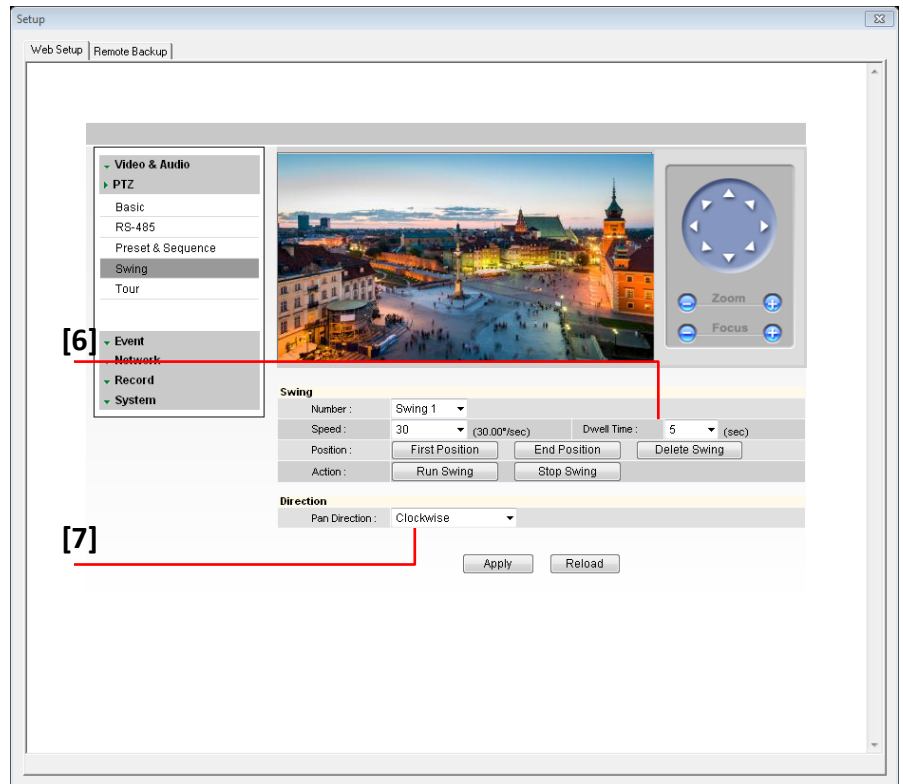
* See page 41 for more information on how to control swings from the camera's main viewer page.

WEBVIEWER*

Setup > PTZ> Swing

Use this setup menu to configure and modify the camera's Swing feature. When the swing function runs, the camera moves between two (2) assigned positions based on the direction set by the user. The camera supports up to 8 Swing patterns. To setup a Swing:

8. Set the Swing's first and second positions.
   a. Move the camera to the position you want to set as the first position. Press **First Position** to save.
   b. Move the camera to the position you want to set as the second position. Press **End Position** to save.
9. Click '**Apply**' to shave all changes.
10. Click '**Delete**' to delete a previously saved Swing.
11. Use the '**Run Swing**' and '**Stop Swing**' to test the swing and make any necessary modification.

* See page 41 for information on how to control swings from the camera's main viewer page.

WEBVIEWER*

Setup > PTZ> Tour

Use this setup menu to configure and modify the camera's Tour feature. The Tour function allows users to run sequences of presets and swings. Each tour can have a maximum of 20 action. The MPTZ20X supports up to 8 Tours (Groups). To setup a Tour:

1. Select the Tour/ Group number from the drop down menu at the top left corner of the setup page.
2. Assign a function to each action value. Select:
   a. Preset# 1~255
   b. Swing# 1~8
3. Set the dwell time for each action. Select from 1 to 60 seconds. This value indicates how long the camera will remain on the preset before moving to the next one. Default is 5 Seconds.
4. Set the number of times the action will be repeated in the tour before moving to the next action. This setup is for Swing options only. Default is 1.
5. Click 'Apply' to save the changes.
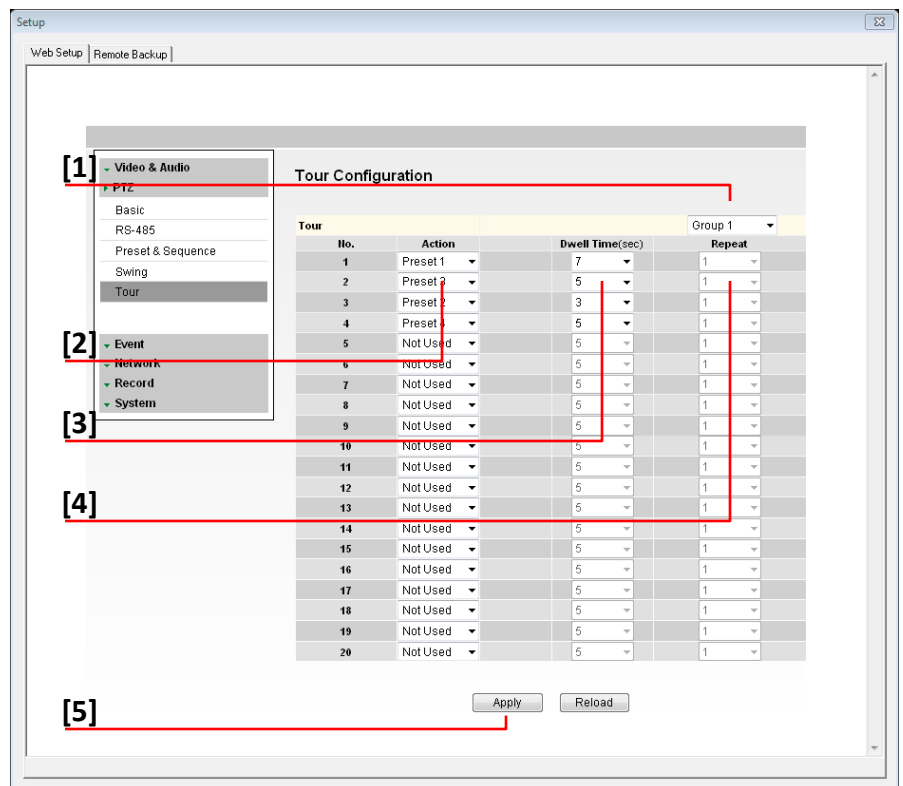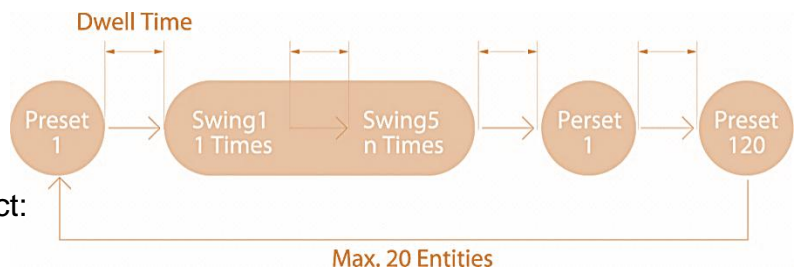
* You must have at least two (2) presets and one (1) Swing set to properly setup a Tour.
** See page 41 for more information how to control Tours from the camera's main viewer page.

WEBVIEWER*

Setup > Event > Motion Detection
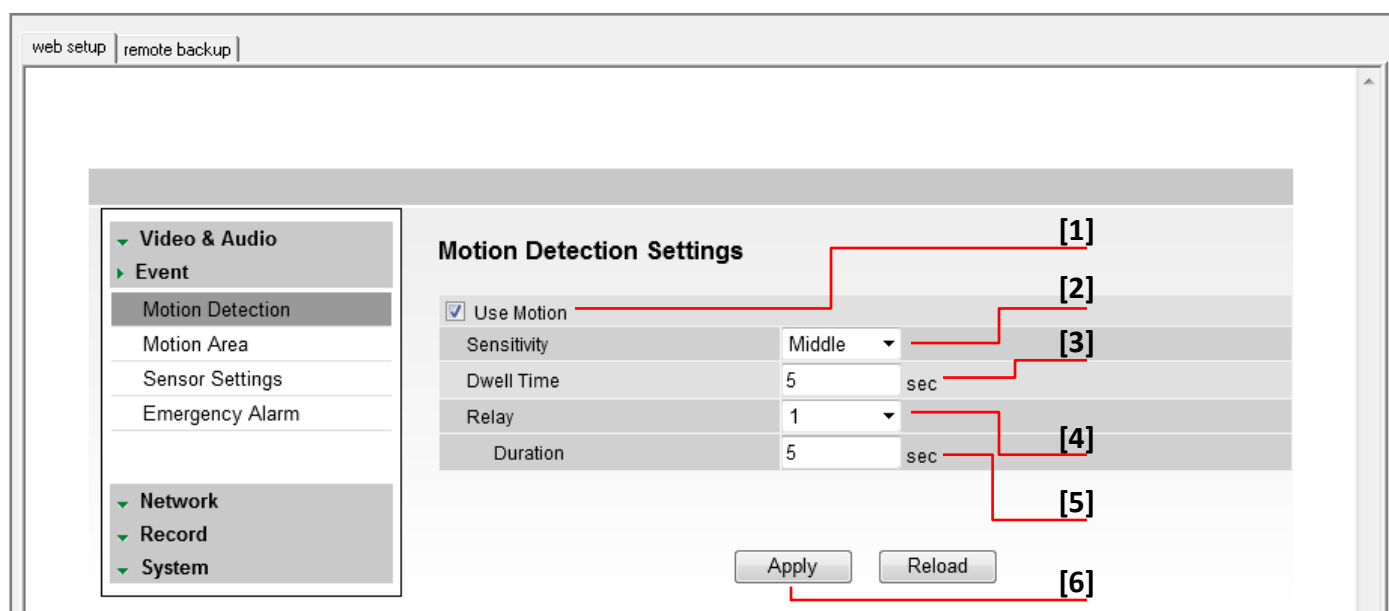
The Motion detection feature allows the MEGAPIX camera to detect motion and trigger an alarm. To set the camera to send e-mail notifications for every motion triggered alarms, see page 75.

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*

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 75.

1. Using the virtual joystick next to the camera's preview screen, move the camera to the position you would like to set for motion detection.
2. 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.
3. Select Clear All to deselect motion areas.
4. Select **Apply** to save changes.
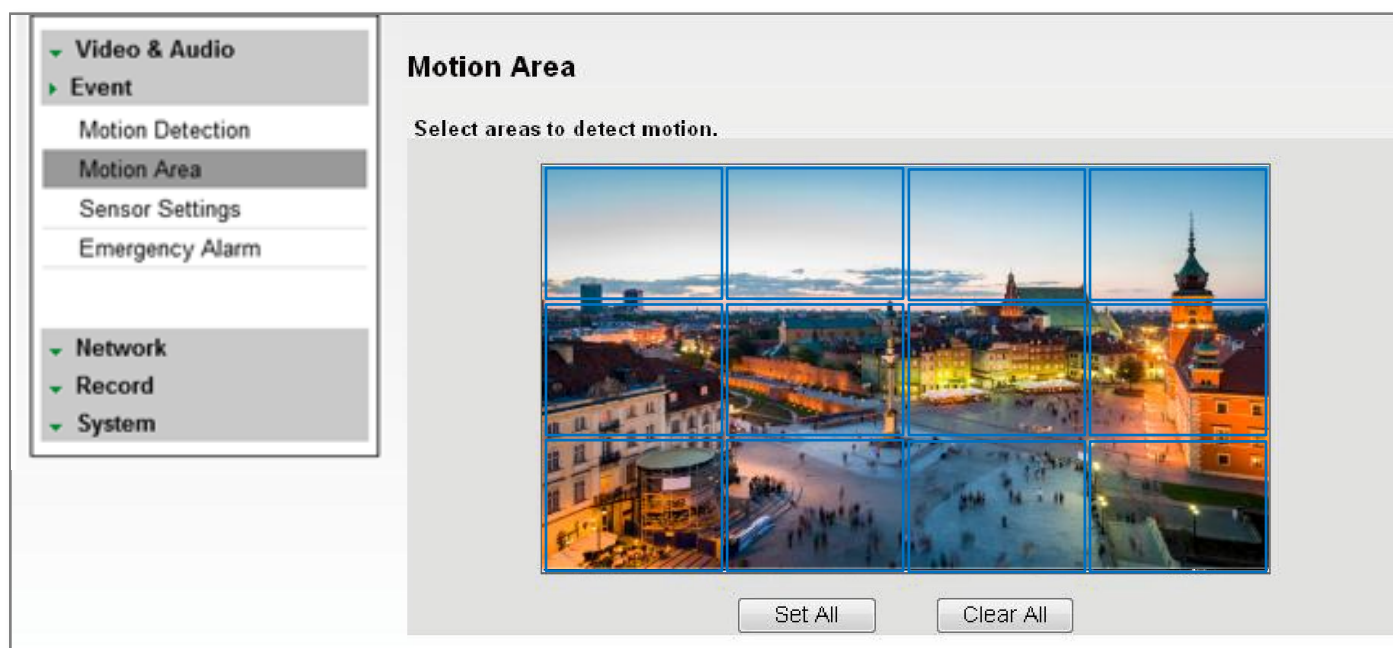
WEBVIEWER*

Setup > Event > Sensor Settings

The MEGApix PTZ camera supports up to three (3) sensor connections and 1 Relay output connection. To Use a Sensor or Realy:

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 Input Settings]

[Relay Output Settings]

WEBVIEWER*

Setup > Event > Emergency Alarm

The Emergency Alarm option allows the camera to send a notification when an alarm is triggered to a 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 EACH data.

3. Event for Emergency Alarm- Select which type of event will trigger the alarm – Motion or Sensor.

4. Select **Apply** to save changes.

WEBVIEWER*

Setup > Network > Network Settings

Use this setup page to adjust the camera's network settings, including the IP address, DNS information, and ports. In the IP Mode section, select the type of IP address for the camera.

1. DHCP- Select this option if you have a DHCP Server and would like your camera to obtain an IP address automatically.
2. PPPoE- Select this option when you use WAN service. Enter a Username and Password from your Internet Service Provider.
3. Static IP- Enter IP information if you decided to give the camera a static (fixed) IP address.
   a. IP Address- Enter the static IP Address of the camera
   b. Subnet Mask- default is 255.255.255.0
   c. Gateway- 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.
   d. To obtain a static IP Address and network information, contact your Internet Service Provider or Network Administrator.
4. DNS- Enter Primary DNS and Secondary DNS. The Domain Name Server translates web addresses to IP addresses.
5. IPv6 Mode- IPv6 offers a new 128-bit address system.
6. MAC Address- Displays the camera's Mobile Access Control Address.
7. Port- Displays all the ports necessary for communication and router setup.
8. Use Flow Control-
9. Select 'Apply' to save all changes and reboot the server.

WEBVIEWER*

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.

WEBVIEWER*

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.

WEBVIEWER*

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.
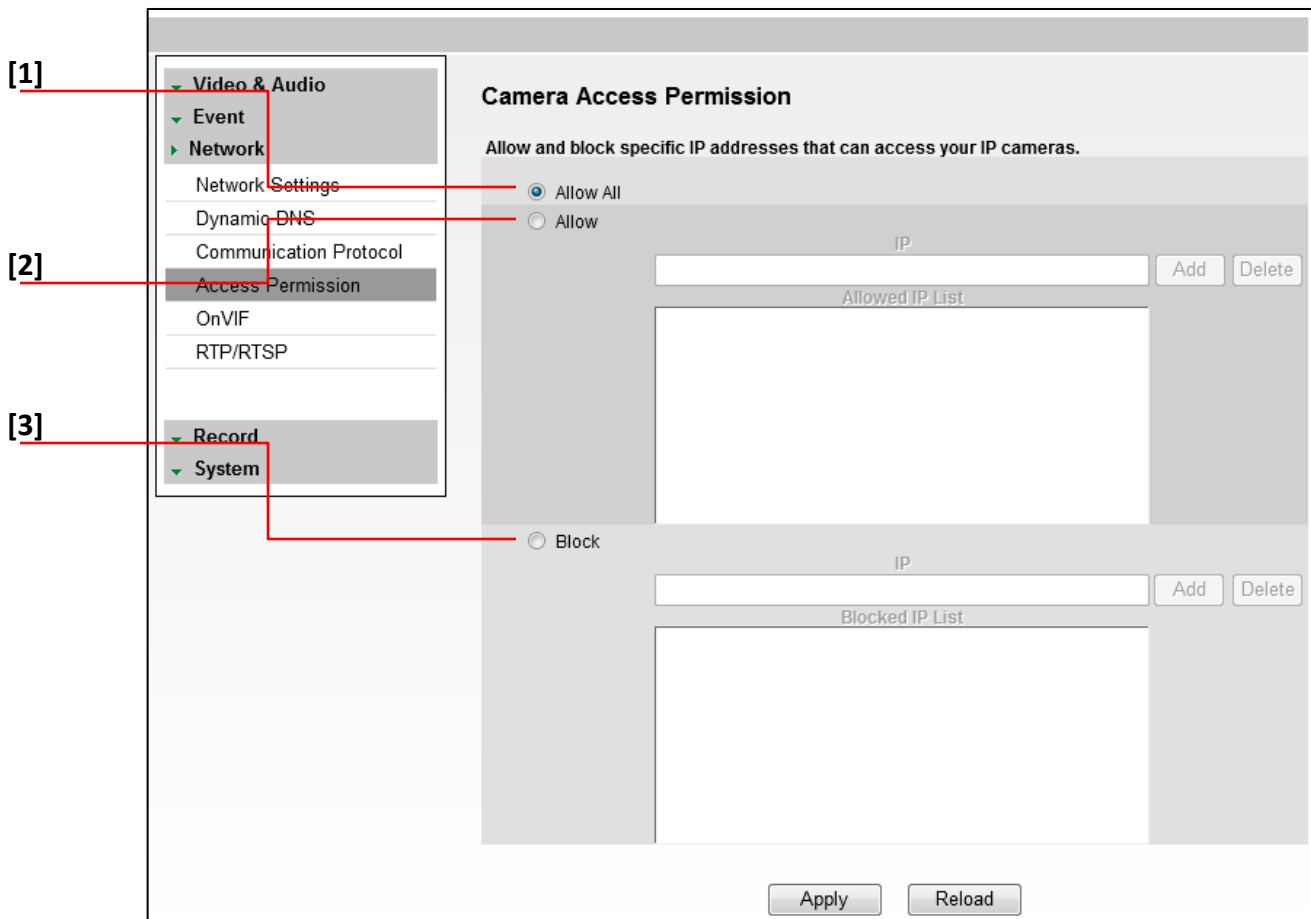
WEBVIEWER*

Setup > Network > OnVIF

OnVIF is the Open Network Video Interface Forum.

1. To use OnVIF, check Enable.
2. Select the number of streams the camera will be sending using the OnVIF protocol. This may vary depending on the software and server you use. Consult your NVR's manual for additional information. The camera will be set to dual stream on OnVIF by default.
3. Service Port will be set by default to "8032." This is the camera's OnVIF port. Use this port information when connecting the camera to a server using the OnVIF protocol.
4. Select On or Off for WS-Security.
5. Select desired Options from the list. Please note that
6. Select On or Off for WS-Discovery (Web Services Dynamic Discovery)
7. Select On or Off to Verify Service Address.
8. Select Apply to save changes.

WEBVIEWER*

Setup > Network > RTP/ RTSP

Real-time Transport Protocol (RTP) and Real-time 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.

WEBVIEWER*

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.
5. To safely remove the SD card, select 'Device Eject'.

Recording Information

6. This section displays the first and last recorded data available on the selected SD card. The SD card records video from the second stream. To modify recording quality, please see page 42.

[1]
[2]
[5]
[3]
[4]
[6]

Storage Device Configuration

Video & Audio
Event
Network
Record
Storage Device
Schedule
System

Device Information

Load Device Information

Partition	Size (MB)	Free (MB)	Recordable	Recording
A01	3720	10	o	

Current Recording Partition :

Record Start   Record Stop   Device Eject

Recording Information

Recording Start Time :
Recording End Time :
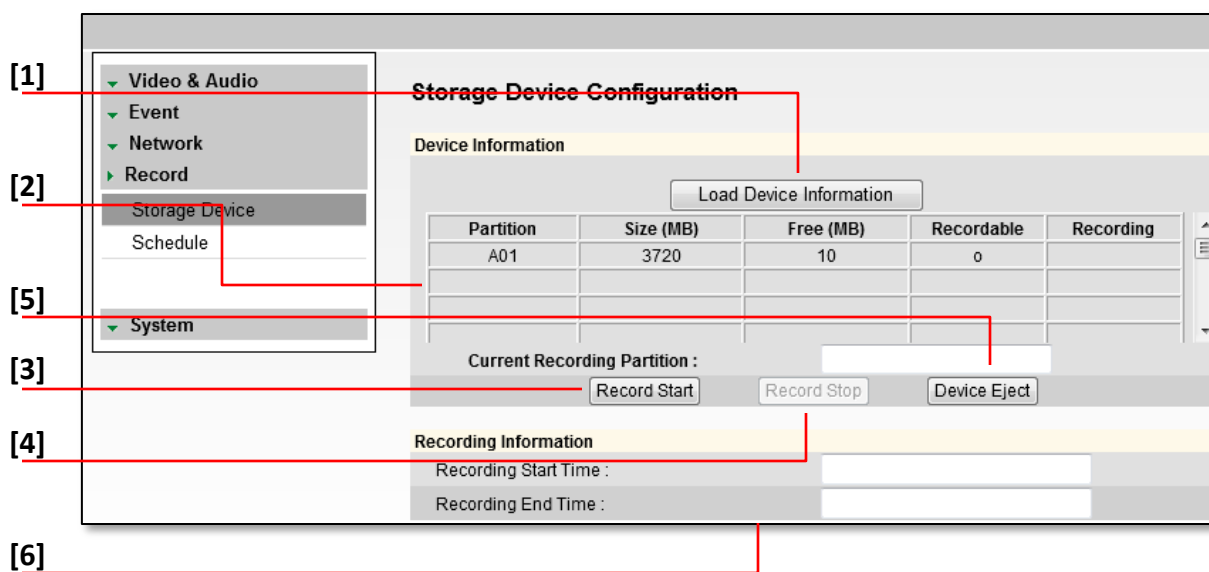
IMPORTANT: The SD card recording function operates as an emergency recording, designed to record video from the camera only when there is a network loss.
If you connect to the camera via the Web viewer or an NVR, the SD card recording will stop.
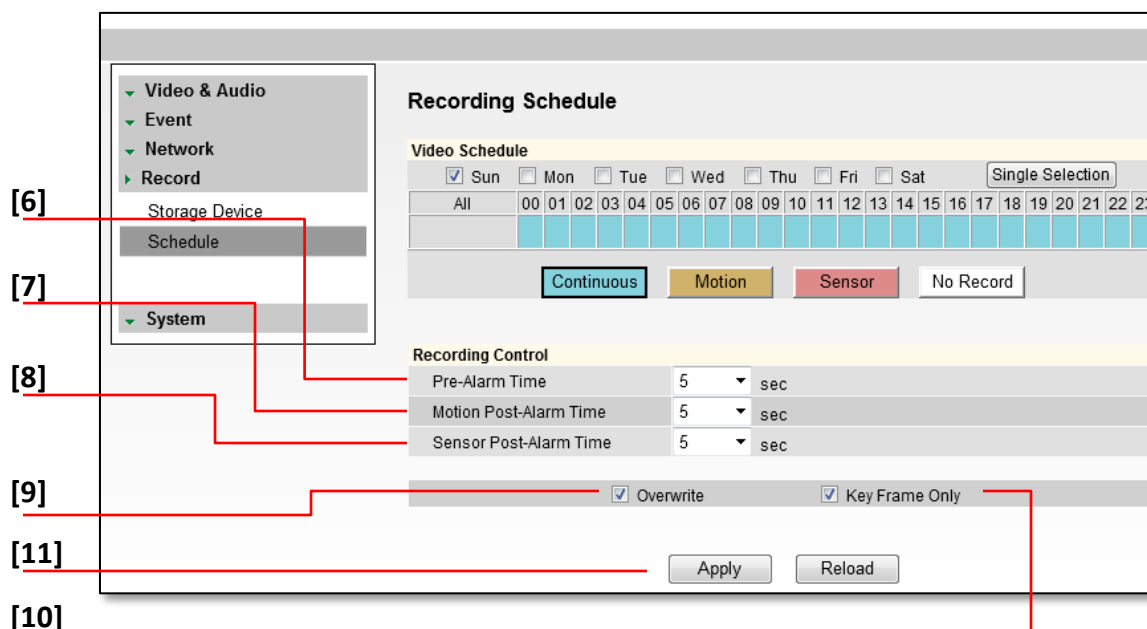
WEBVIEWER*

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.

WEBVIEWER*

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

6. Pre-Alarm Time- Save previous image of event for duration of time.
7. Motion Post-Alarm Time- Save images after motion events for duration of time.
8. Sensor Post-Alarm Time- Save images after sensor events for duration of time.
9. Overwrite- If selected, once the SD card is full, new video will be recorded over older data.
10. 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.
11. Select Apply to save changes.

WEBVIEWER*

Setup > Remote Backup Tab

The MEGAPIX Series allows you to back up 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*

Setup > System > Upgrade

Upgrade the MEGApix camera and reset it to factory default.

System Version- Shows the current version of the camera.

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. System will automatically reboot.

FTP Upgrade-

    a. Server Address- FTP Server IP address.

    b. Port- Default is 21.

    c. User ID and Password- FTP Server Log in ID and Password.

    d. Directory- Upgrade File Path.

    e. Action- Select Check Upgrade to display the Upgrade File list.

    f. Status- Display progress of the Upgrade.

Factory Reset- Reset the camera to its original factory settings.

    a. 'General'- reset to factory default on all settings except Network settings.

    [Manual Upgrade]

    b. Full'- will reset ALL of the camera's settings.

    [FTP Upgrade]

    [Factory Default]

WEBVIEWER*

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.

WEBVIEWER*

Setup > System > E-mail Notification

Send an e-mail notification from the camera based on events such as sensor activation, motion detection, camera reboot or upgrade.

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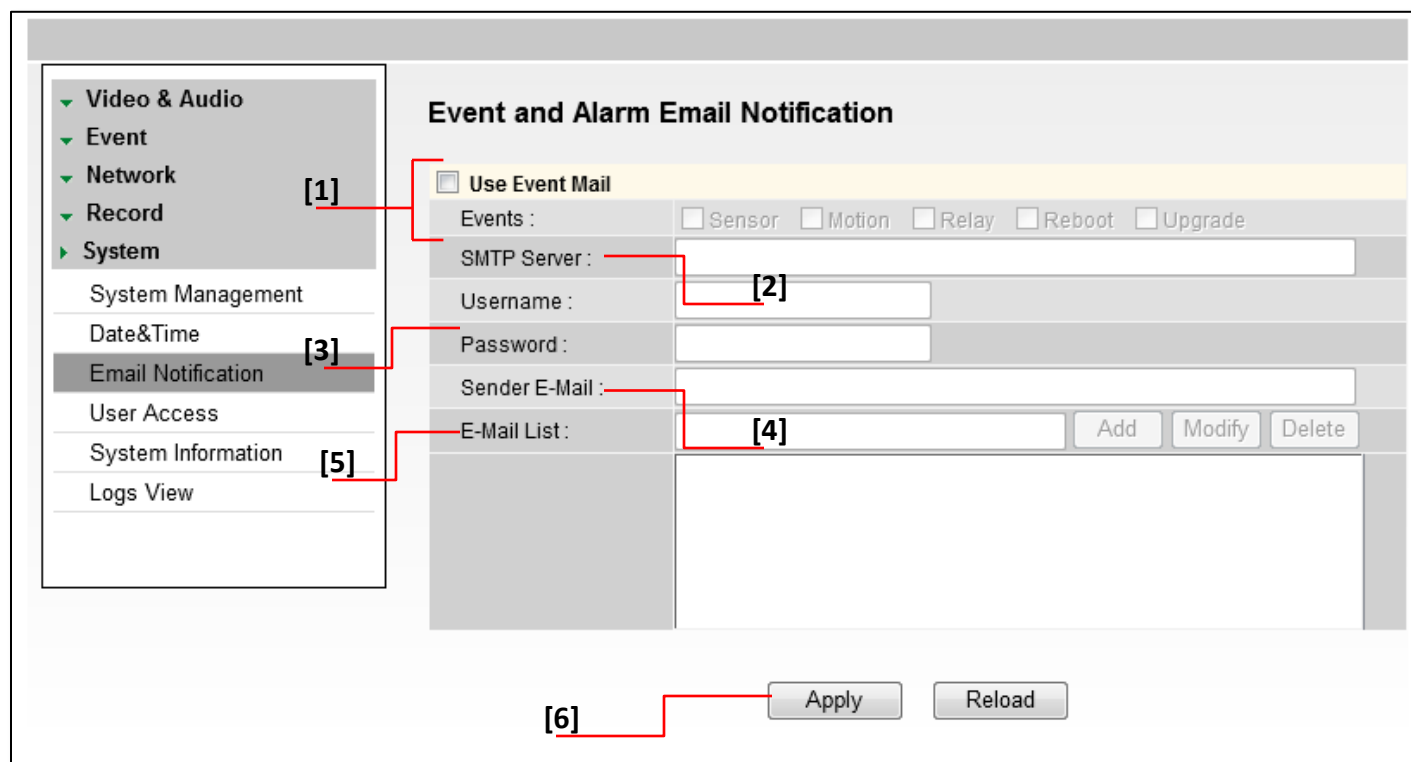
* Email Notifications do not support TSL/SSL option. Notifications are TEXT only.

WEBVIEWER*

Setup > System > User Access Control

To add a new user:

1. Enter Username and Password.
2. Select a Permission type.
1. Super- Administrator
2. Operator- View and Edit Video and Event Settings Only
3. Viewer- View Only
3. Click Add.
4. To modify a user, select the user from the User List, and click Modify.
5. To remove a user, select the user from the User List, and click Remove.
6. Select Apply to save changes.

* The maximum number of users (including admin) is twenty.

WEBVIEWER*

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.

WEBVIEWER*

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 xxx for information on how to set motion detection for the MEGApix camera.
4. Select Export to save the log report to an excel file.

SPECIFICATIONS*

IMAGE	
Image Sensor	½.8" CMOS Sensor
Total Pixels	2016 (H) x 1108 (V)
Minimum Scene Illumination	F1.6 (30IRE): 1.7 Lux [Color] F1.6 (30IRE): 0.3 Lux [B&W]
Lens	4.7~94mm Remote Auto Focus
Digital Zoom/ Optical Zoom	12X/ 20X
Maximum Aperture Ratio	F1.6~F3.5
AUDIO	
Compression and Sampling Rate	G.711 (8KHz)
Input/ Output	1 Line IN, 1 Line OUT Mono
OPERATIONAL	
DNR (Digital Noise Reduction)	Off/ 1~5
Auto Gain Control	Auto, Manual, Shutter Priority, Iris Priority, Bright, Spotlight
BLC (Back Light Compensation)	Off/ On
WDR (Wide Dynamic Range)	Off/ On/ Level 0~9
Day and Night	Auto/ Day (Color)/ Night (B/W)
Sensor In/ Out	2 In/ 1 Out
Alarm Notifications	Notifications via E-mail, FTP, Alarm Out, JPEG, and SD Card
Privacy Zone	Off/ On (30 Programmable Zones)
Motion Detection: Sensitivity	Low/ Middle/ High
Memory Slot	24 hours recording to Micro SDHC Card (4GB-32GB) *Card not included
Recording Schedule Setup	Continuous/ Motion/ Sensor/ Pre- & Post- Alarm
Pan Tilt Zoom	
Range	360° Pan, 90° Tilt
Preset	255
Sequence	4 (Approximately 5 Minutes for Each Pattern)
Swing	8, 1.4°~180°/Sec
Tour	8 (Max 20 Entries Per Group)
Protocol	Pelco-P, Pelco-D

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- 24 hours recording to Micro SDHC Card (4GB-32GB)
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- MPTZ20X	-45°C ~ 55°C (-49°F ~ 131°F)
Operating Temperature- MPTZ20XFM	-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)
Other Specifications	CE, FCC, RoHS
Electrical	
Power Requirement	AC24V, PoE Injector
Power Consumption	Heater Off: 15W, 1,250mA , Heater On: 55W, 4,583mA
Mechanical	
Housing Material	Aluminum Housing, Polycarbonate Dome
Dimensions- MPTZ20X	260 X 271.5 mm, 10.2 X 10.7 in
Dimensions- MPTZ20XFM	211.8 X 244.2 mm, 8.3 X 9.6 in
Weight- MPTZ20X	10.9 lbs
Weight- MPTZ20XFM	6.39 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, if using a power adaptor, does it meet camera's power requirements?
  Power Requirements: DC12V (5.16W, 430mA), PoE Ports (Class 2, 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 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 adminitrator 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," cmaera is not connected. Camera is connected if you get data.
- If Yes, try connecting the camera to a differt 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 2 buttons in the back together and hold for 5 seconds. The camera will return to factory deafult 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 MPA20M 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 blcok pop-up windows and allows ActiveX files to be installed and used. *Setup may vary dpeending on the browser you use.
- If Yes, make sure nothing is blocking the MPA20M camera's lens.
- Are you trying to view the camera's video from a different browser than Internet Explorer (ex. Google Chrome, Mozilla Firefox, MAC Safari)?
- If Yes, at least one of the streams of the camera must have Codec 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 Save and Reolad 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 4 (TCP/IPv4).
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.
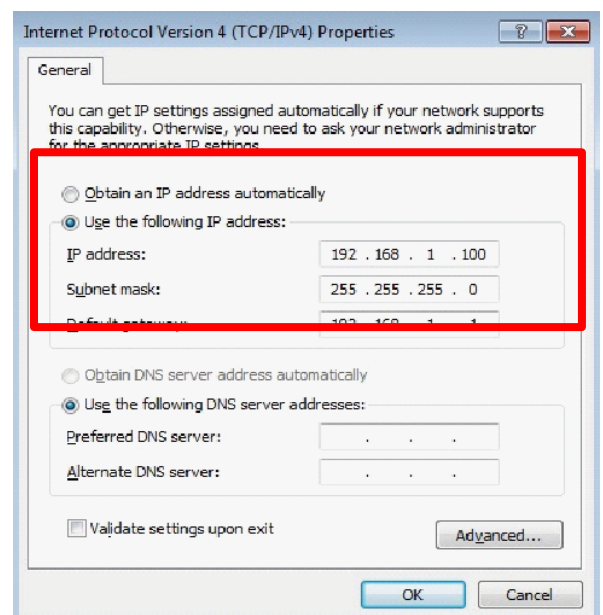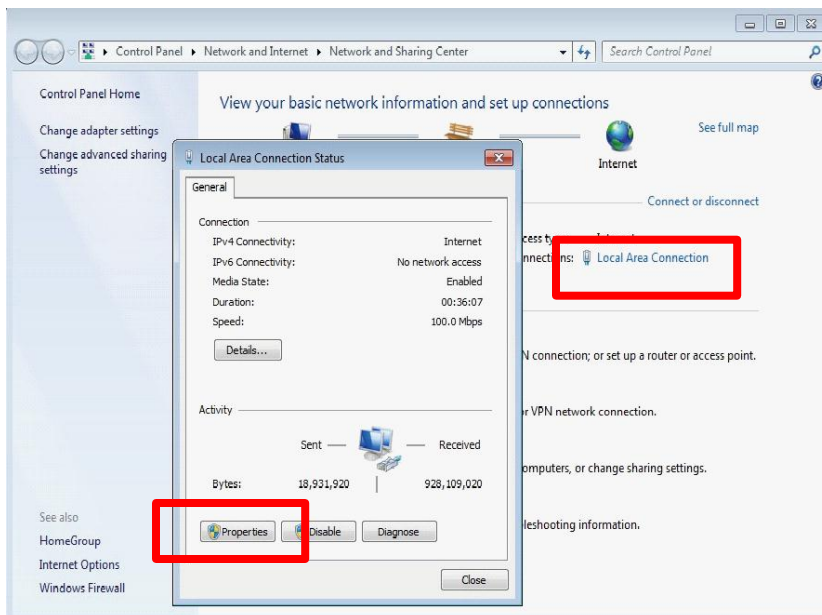
WARRANTY INFORMATION*

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 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.

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.
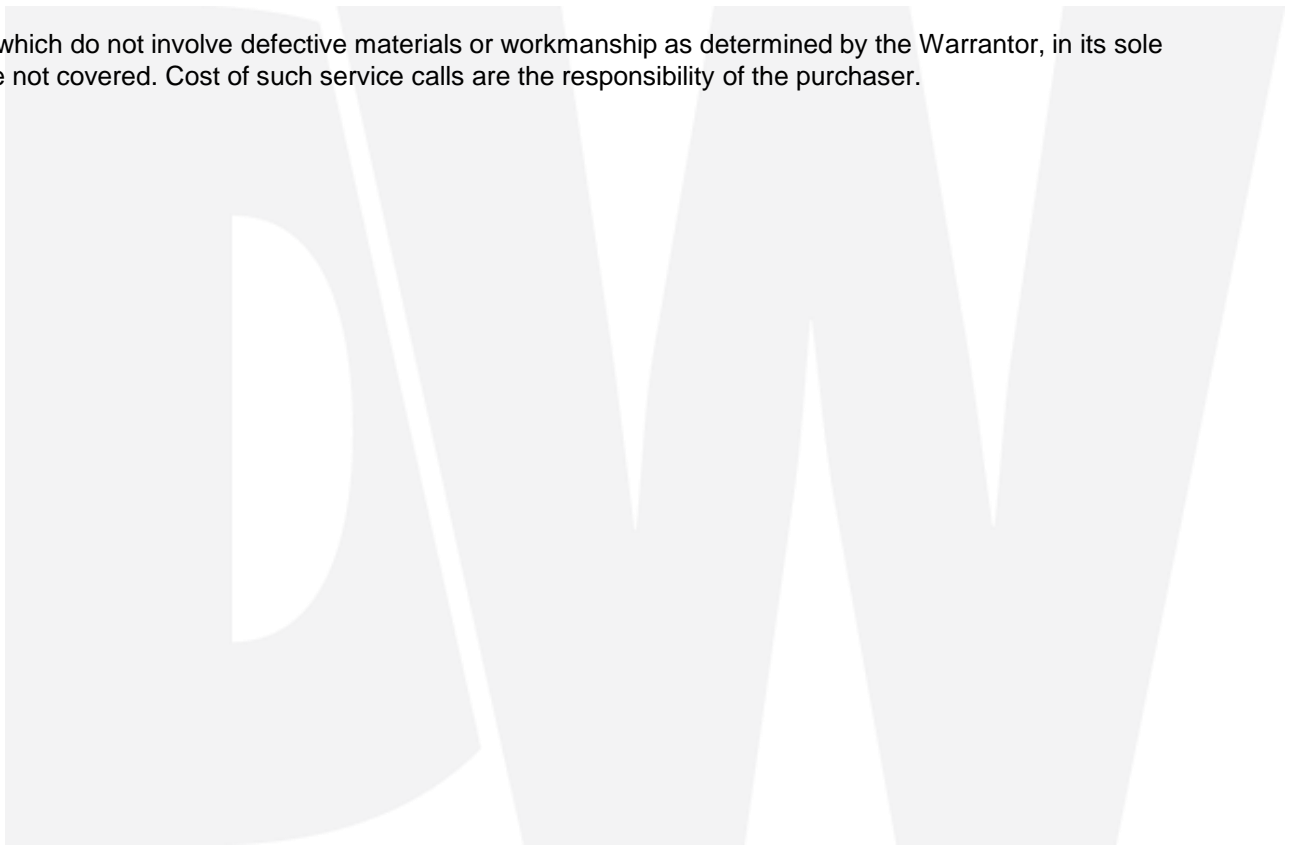
MEMO*

Headquarters Office: 5436 W Crenshaw St, Tampa, FL 33634
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French Canadian 1+ (514) 360-1309
Technical Support Hours: Monday-Friday
9:00am to 8:00pm Eastern Standard Time