



DWC-MV72i4V

DWC-MV72i28V

MEGApix 1080p Mini Outdoor Dome IP Camera



ONVIF



UPnP
FORUM
MEMBER



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. Q

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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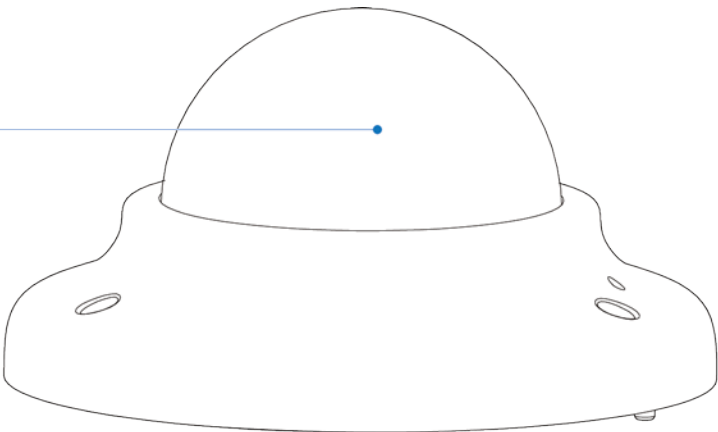
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FEATURES*

- 2.1 Megapixel Image Sensor (1080p, 30fps)
- Real-time 1080p 30fps High Definition
- Dual Codecs (H.264, MJPEG) with Simultaneous Streaming
- 4.0mm Fixed Lens (DWC-MV72i4V)
- 2.8mm Fixed Lens (DWC-MV72i28V)
- Smart IR™ with Intelligent Camera Sync. 50ft Range
- True Day/Night with Mechanical IR Cut Filter
- Auto Gain Control (AGC)
- Back Light Compensation (BLC)
- Auto White Balance (AWB)
- Motion Detection
- Web Server Built-in
- PoE and DC12V
- OnVIF Compliant, Profile S
- Water Proof Cabling
- IP67 Certified (Weather Resistant)

PARTS & DESCRIPTIONS*

Dome Cover



Lens

Gimbal

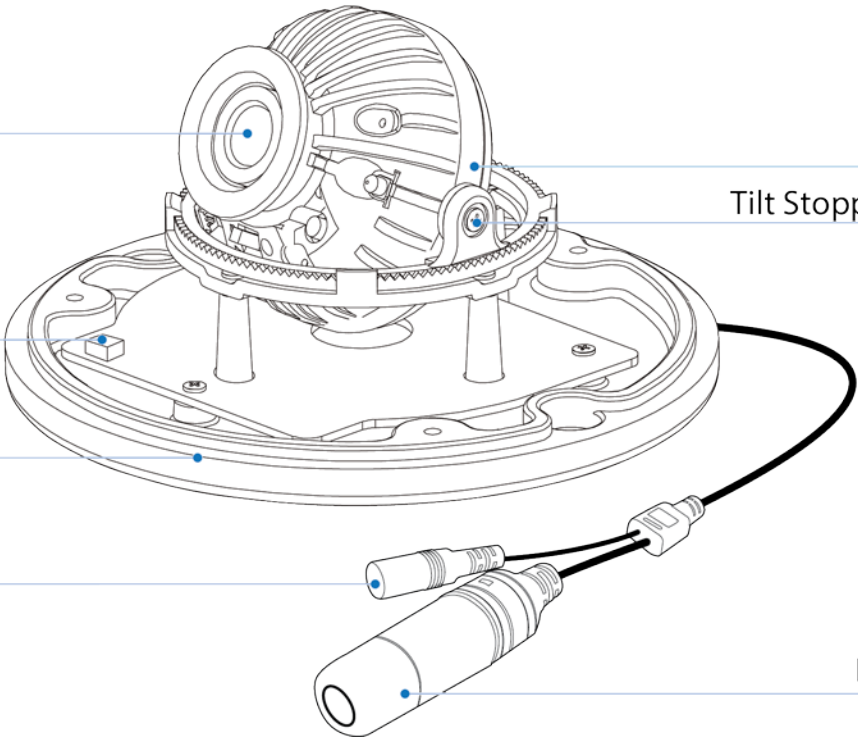
Tilt Stopper Screw

Reset Button

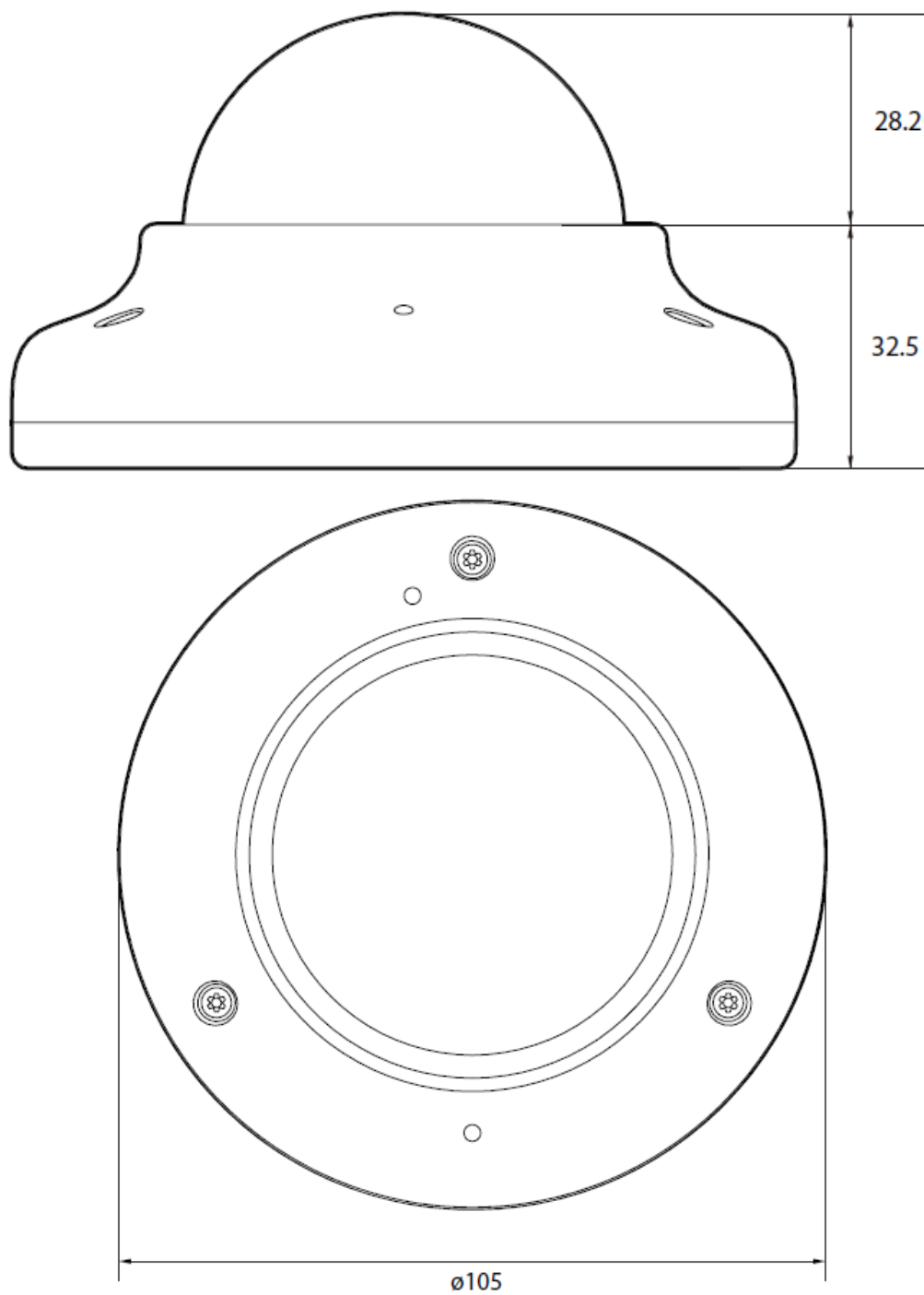
Bottom Case

DC Power Cable

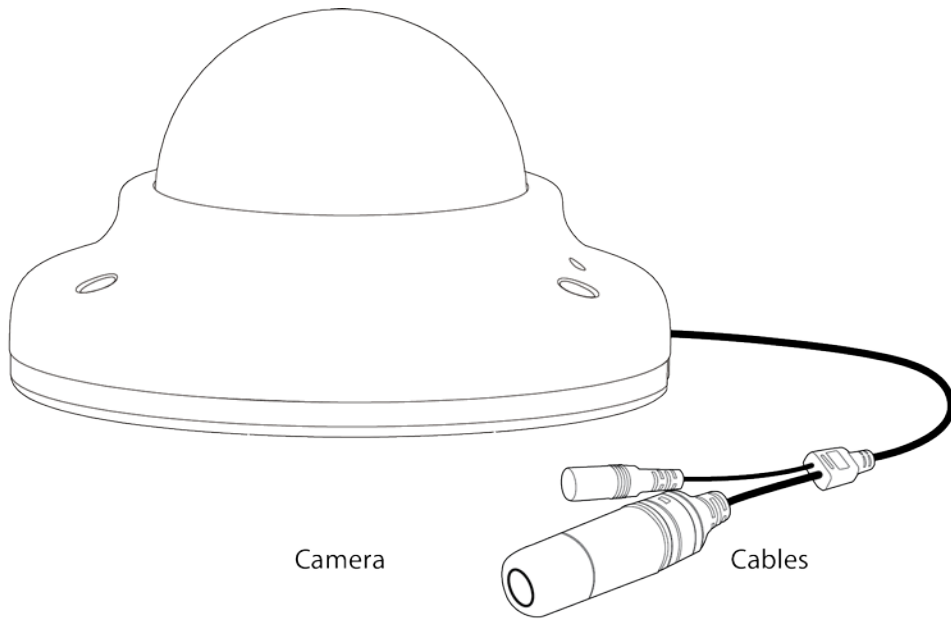
RJ-45 Cable



DIMENSIONS (MM)*

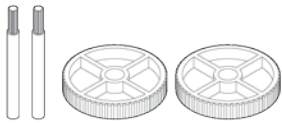


INCLUDED IN THE BOX*



Camera

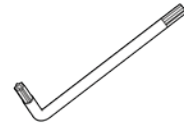
Cables



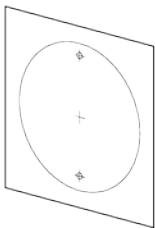
Mount Bolt & Nut



Manual CD



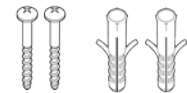
Torx Wrench



Template Sheet
for installing by Bolt & Nut



Quick Manual



Screw &
Plastic Anchor-2pcs

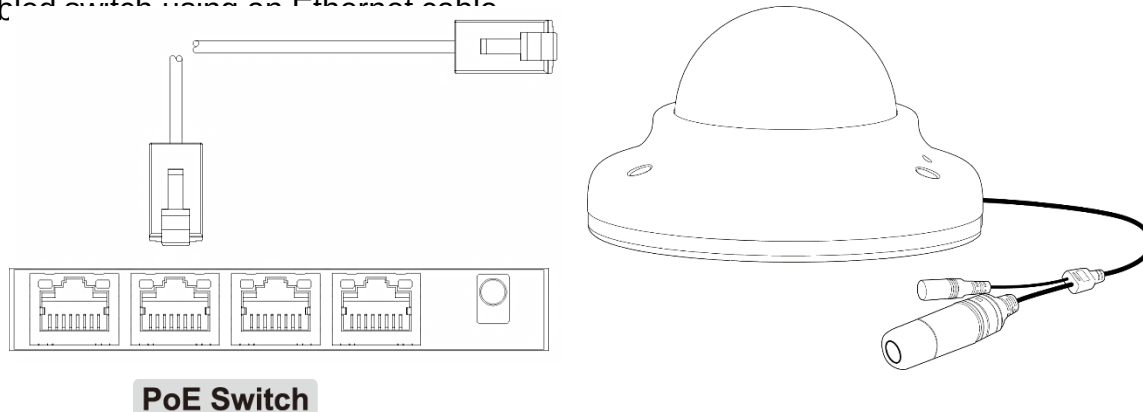
NETWORK CONNECTION*

There are two way to power a MEGApix® 1080p™ 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.

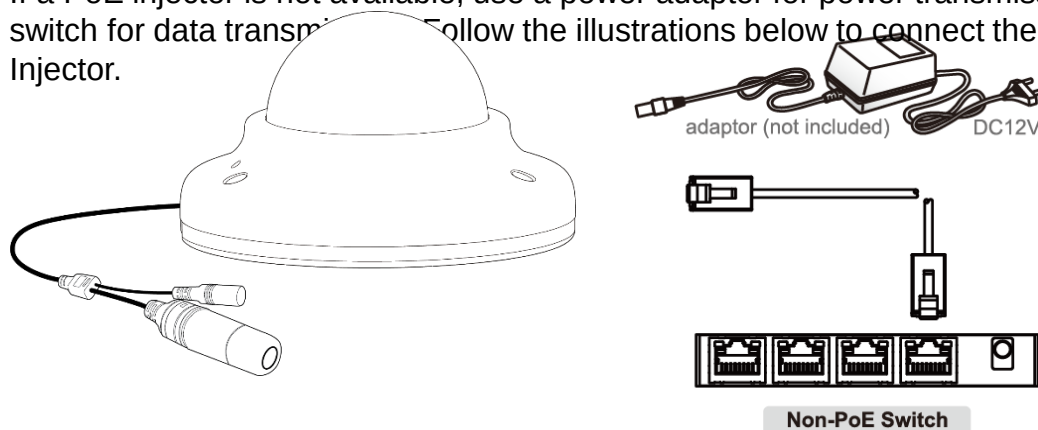
1. Using a PoE-Enabled Switch

The MEGApix® 1080p™ 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.



2. Using 12VDC

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.



INSTALLATION*

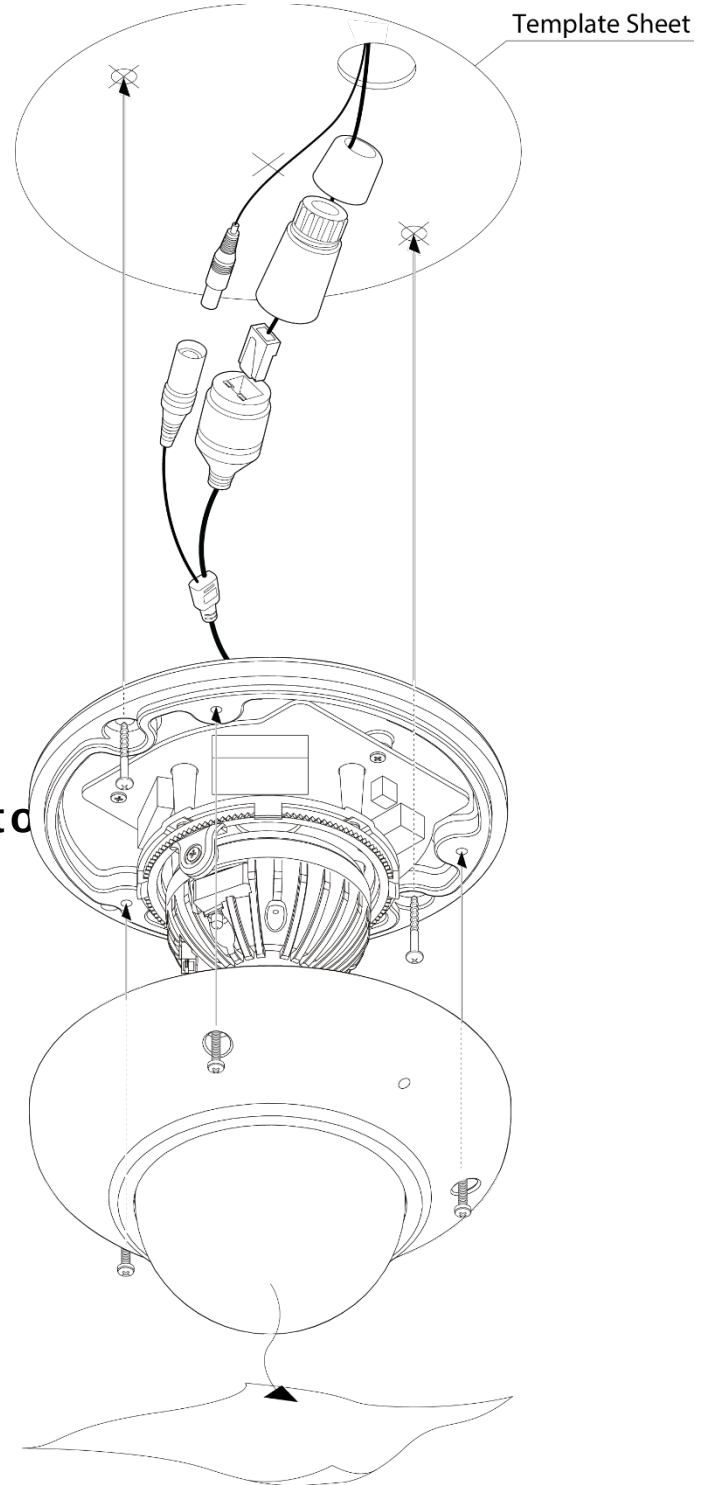
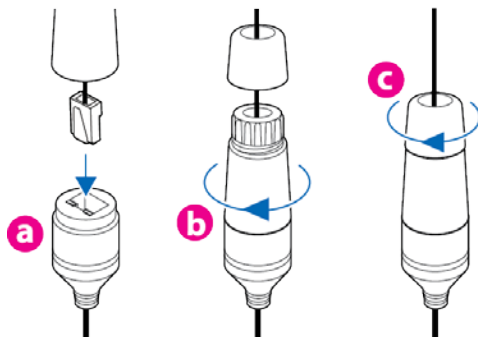
Easy Camera Installation

1. Detach the camera's cover dome from the camera's module by unscrewing the three cover dome screws using the L-Wrench.
2. Use the camera or mounting template to mark and drill the necessary holes in the wall or ceiling.
3. Pull wires through and make connections.
4. Using three (3) included screws, mount and secure the camera to the wall or ceiling.
5. Secure the camera's cover dome onto the camera base to complete the installation.
6. See page 10 for camera angle adjustment.

Using the Cable Weather Protector

To use the LAN water protector case, refer to the diagram below:

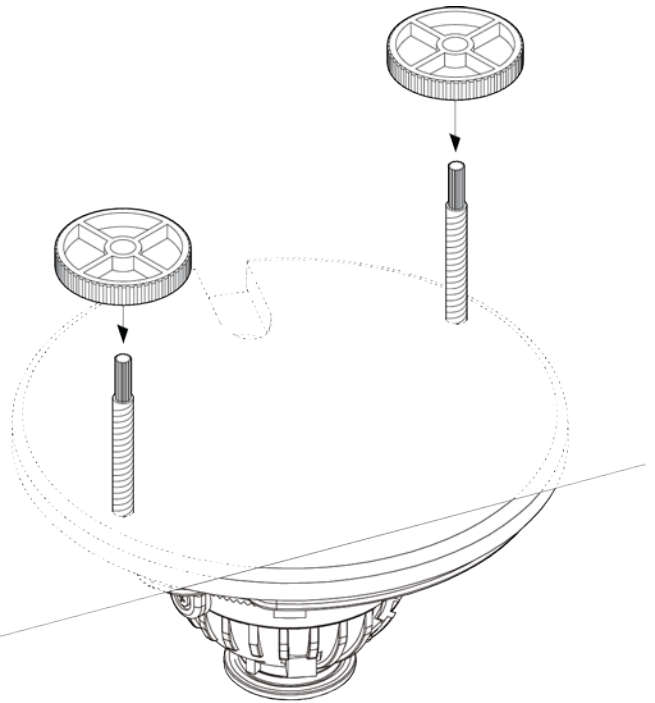
1. Insert the network cable into (a), the camera's network port.
2. Connect (b) to the camera's network port by rotating it clock-wise until tight.
3. To complete the water-proof installation, connect part (c) to the case's body, securing tightly by rotating it clock-wise.



INSTALLATION USING MOUNT BOLT & NUT*

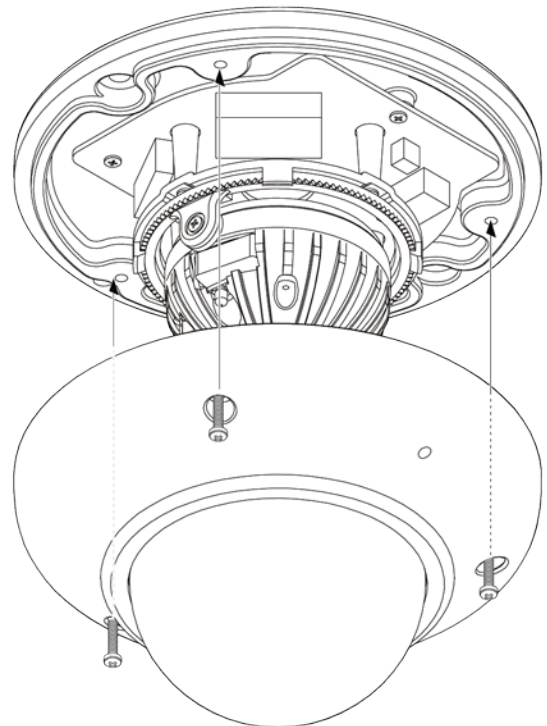
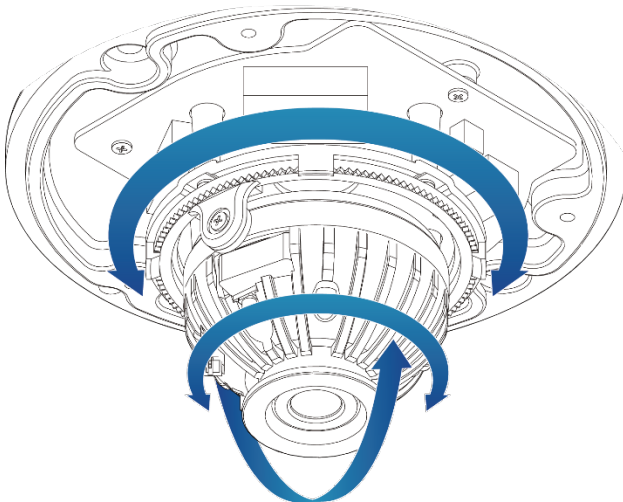
Easy Camera Installation

1. Detach the camera's cover dome from the camera's module by unscrewing the cover dome screws.
2. Using the camera or mounting template, mark and drill the necessary holes in the mounting surface.
3. Secure the two long mounting screws to the camera's base.
4. Pull wires through and make connections.
5. Mount the camera to the mounting surface using the 2 mounting nuts.
6. Secure the camera's cover dome onto the camera base to complete the installation.
7. See page 9 for water-proof cabling installation.



Adjusting the Camera's Angle

1. The camera's lens can be rotated 360°
2. The camera's lens can be tilted up to 70°. Tilting the camera's lens at a greater angle than 70° may cause image and IR reflection issues.

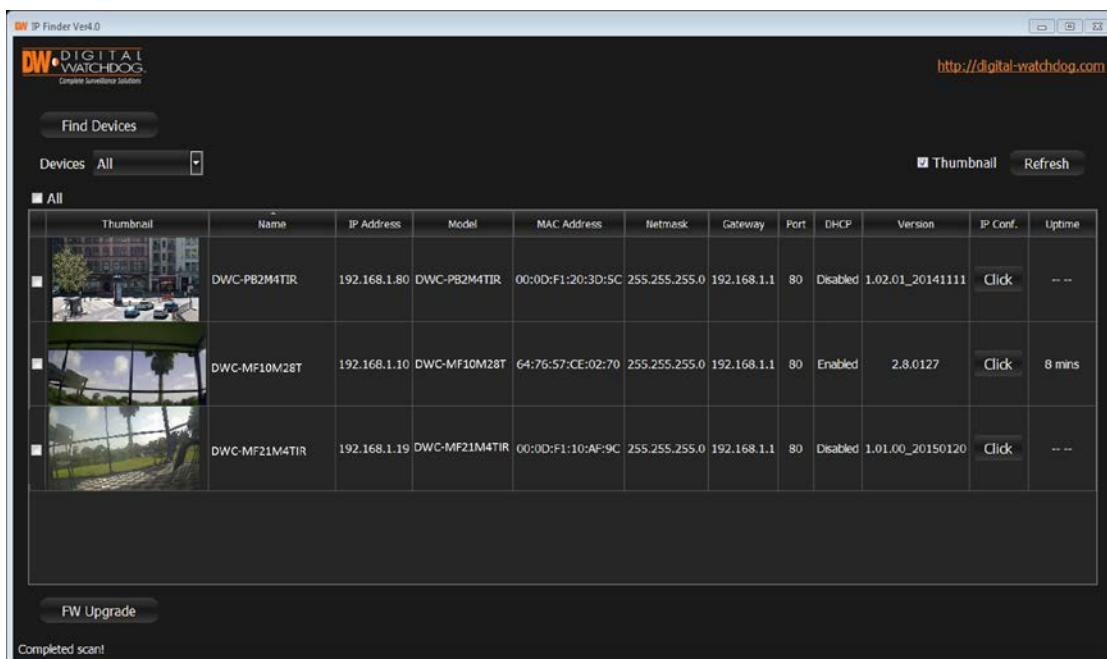


DW Desktop Tool™ *

Installing DW Desktop Tool™ Software

DW Desktop Tool™ searches for all available Digital Watchdog devices currently connected to your network.

1. Install **DW Desktop Tool** to find the MEGApix® 1080p™ camera on your local network. The software can be found on the included User Manual CD. Run **DW Desktop Tool** and install onto your PC.
2. When setup is complete, launch **DW Desktop Tool**.
3. The software will automatically search your network for all Digital Watchdog® supported devices. Your camera will appear as "DWC-MV72i4V" or "DWC-MV72i28V."
4. Double-click on the camera name and select 'View Camera Website' to launch the camera's web viewer.



*Install the **DW Desktop Tool** to a computer located on the same Subnet Mask as the MEGApix® 1080p™ camera.

DW Desktop Tool™ *

Using DW Desktop Tool™ Software

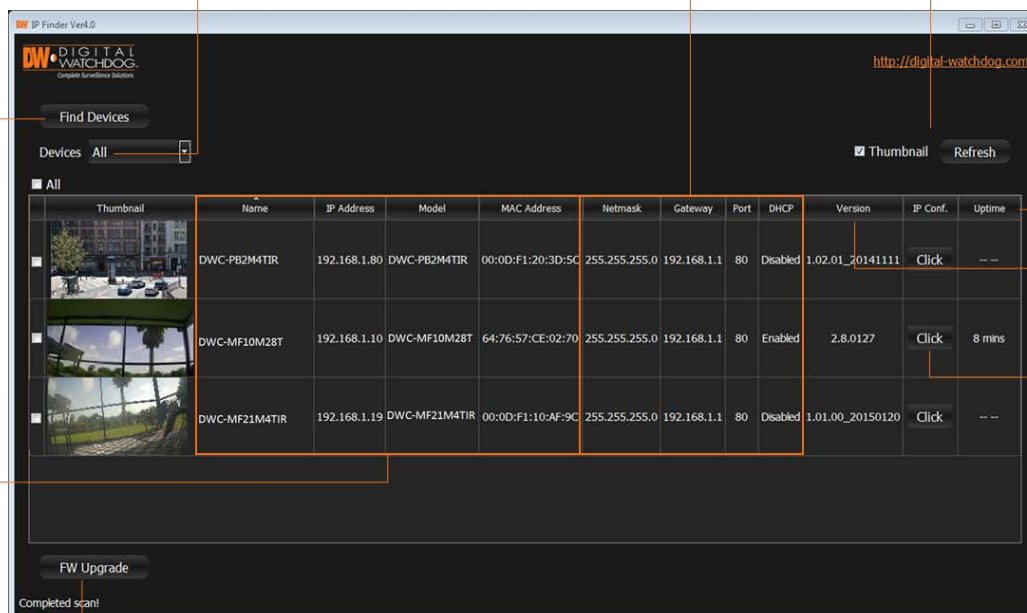
Use DW Desktop Tool™ to change the basic settings of your MEGApix® camera or to connect to your MEGApix® camera.

Search for Cameras

Camera's
Network Settings

View Camera's
Thumbnail View

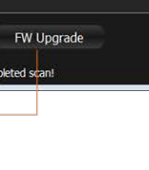
Filter Search Results



Find Devices

Devices All

Thumbnail Refresh

Thumbnail	Name	IP Address	Model	MAC Address	Netmask	Gateway	Port	DHCP	Version	IP Conf.	Uptime
	DWC-PB2M4TIR	192.168.1.80	DWC-PB2M4TIR	00:0D:F1:20:3D:5C	255.255.255.0	192.168.1.1	80	Disabled	1.02.01_20141111	Click	--
	DWC-MF10M28T	192.168.1.10	DWC-MF10M28T	64:76:57:CE:02:70	255.255.255.0	192.168.1.1	80	Enabled	2.8.0127	Click	8 mins
	DWC-MF21M4TIR	192.168.1.19	DWC-MF21M4TIR	00:0D:F1:10:AF:9C	255.255.255.0	192.168.1.1	80	Disabled	1.01.00_20150120	Click	--

FW Upgrade

Completed scan!

Camera Uptime

Camera's Firmware

Open Camera's IP
Configuration Screen

Camera Name,
Model, IP Address,
and MAC Address

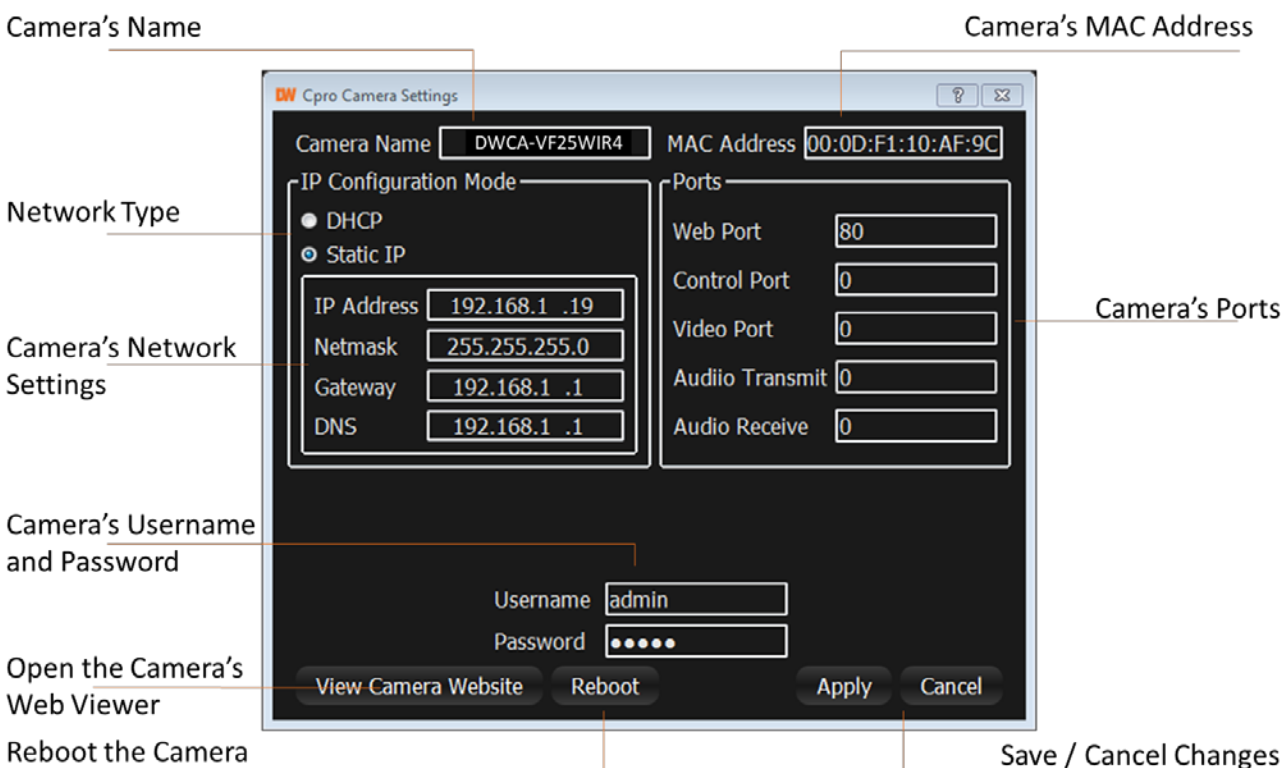
Firmware Upgrade

DW Desktop Tool™ *

Using DW Desktop Tool™ Software

Use IP Finder to set the connection type and the IP address information for your MEGApix® 1080p™ camera.

1. **DHCP:** Select DHCP to access the camera within the same internal network. For further explanation on DHCP, please see page 15.
2. **Static IP:** Select Static to connect to the camera from an external network. For further explanation on Static, please see page 15.



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

DW Desktop Tool™ *

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® 1080p™ camera is set to DHCP, IP Finder will automatically find and set your MEGApix® 1080p™ 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® 1080p™ 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® 1080p™ 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.

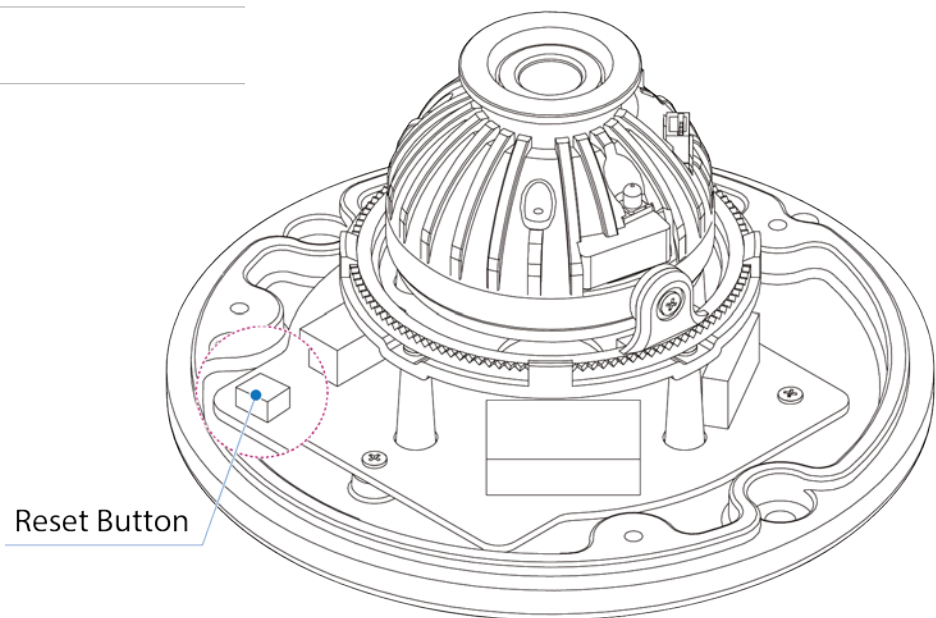
CAMERA REBOOT*

Resetting the Camera

Pressing the reset button on the camera's back 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	192.168.1.80
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
HTTP Port	80



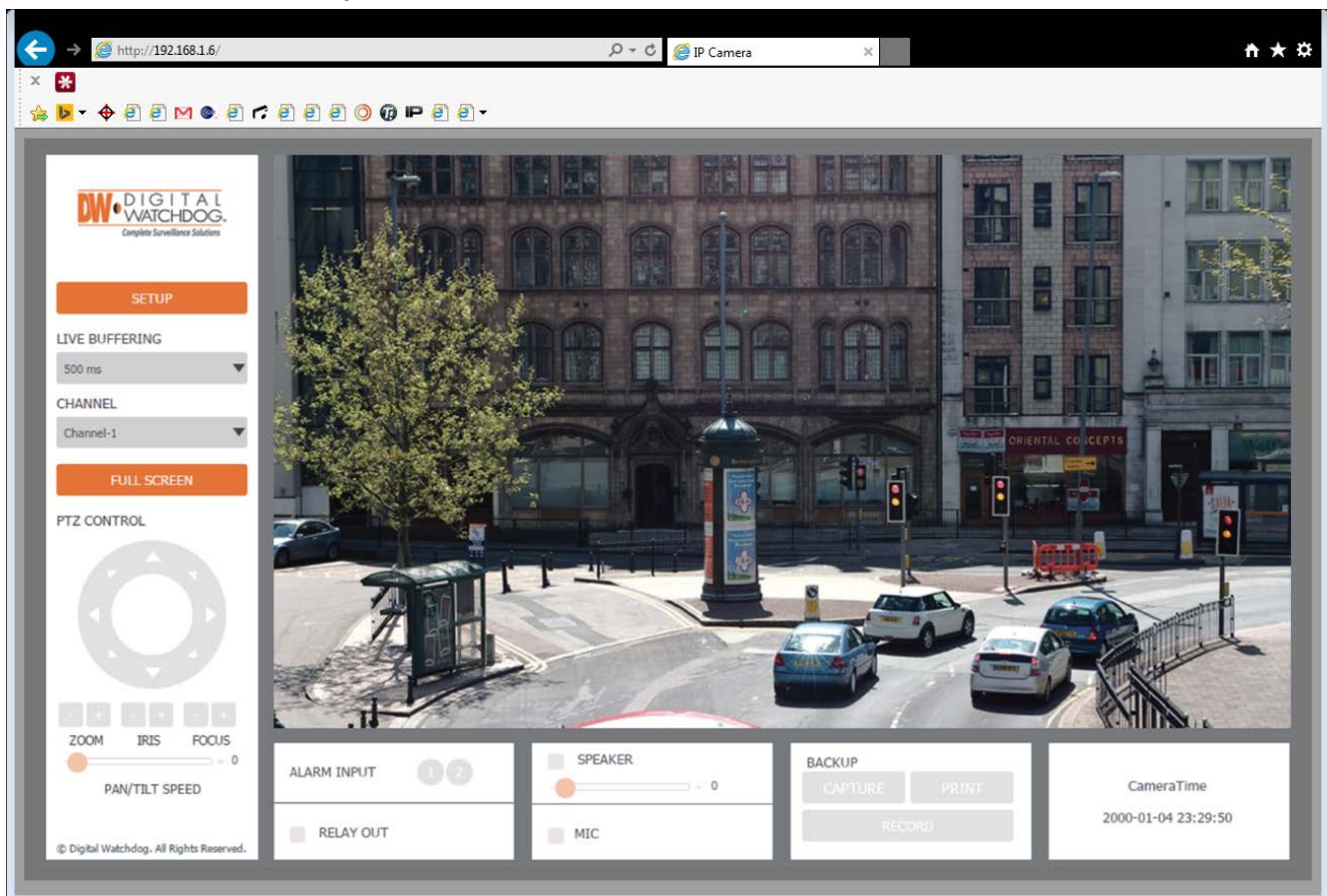
* Frequent use may cause system error.

WEBVIEWER*

Remote Video Monitoring Via Internet Explorer

Monitor and configure the MEGApix® 1080p™ camera through a built-in web viewer.

1. Type the IP address of the camera in an Internet Explorer window.
Example: <http://192.168.1.80> (Factory Default)
2. Enter **Username** and **Password**
Default: Username: admin | Password: admin
3. The web browser may ask to install **FbVLC** to view video from the camera. Once it has been installed, Internet Explorer will display video images from the camera.
4. The Web Client is also available in Google Chrome, Safari and Firefox web viewers. Please note that features may be limited.

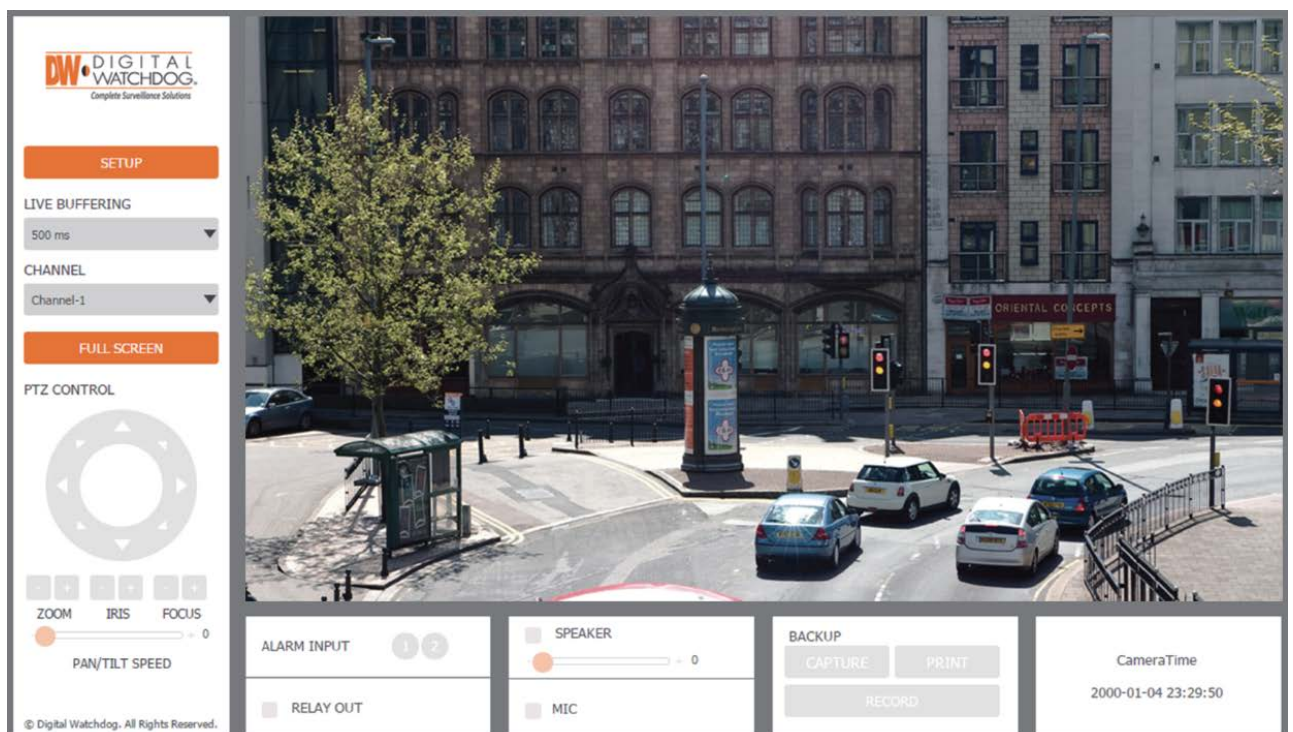


WEBVIEWER*

GUI Description

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

1. Live video display- This is the region for live video stream from the camera.
2. Setup Menu- Setup the camera's Video, Network, Events, System etc.
3. Stream selection- Select a stream to display it in the viewing area.
4. Full Screen- Expand the camera's view into full screen.
5. Menu options such as PTZ, audio, sensor and backup options will be disabled for cameras that do not support those functions.



WEBVIEWER*

Channel / Stream Selection

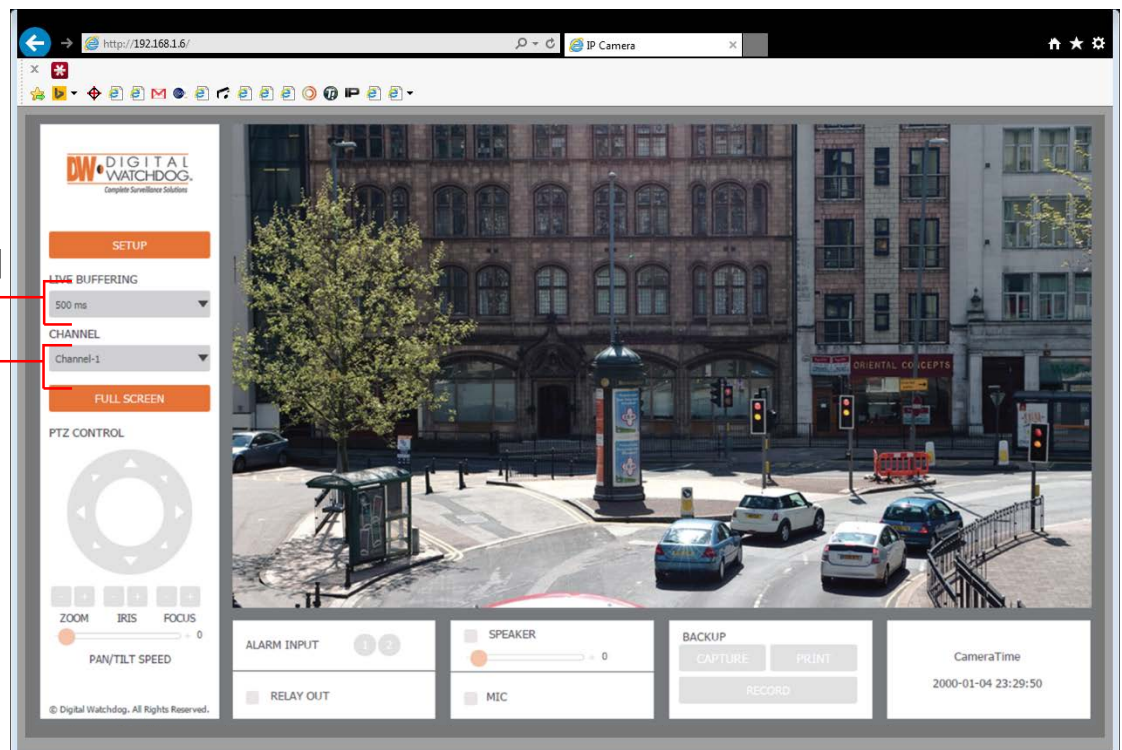
On the main monitoring page, user can view the camera with multiple streaming options. The camera supports the setup of up to three (3) different streams with different resolution, and FPS for maximum network control. Select which stream/ channel to view in the camera's main menu by selecting one of the options from the drop-down menu. See page 25 for stream setup.

Live Video Buffering Selection

Users can also adjust the camera's live video buffering time. The lower the number, the image will display with little to no delay, but if network issues arise, the camera's view may freeze to "buffer". Set the buffering time higher to eliminate video freezing. For example, if 500ms is selected (default), the camera's live video will display at 500ms delay, allowing the camera 500ms room to buffer during slow connections and prevent camera freeze.

[Live Buffering Selection]

[Streams Selection]



WEBVIEWER*

Setup > Basic > Video

The MEGApix® camera allows you to setup 3 different streams to optimize storage and bandwidth usage.

1. Channel- Select which channel/ stream to setup by checking the box next to the appropriate number.
2. Codec- The MEGApix 1080p camera supports three streams with set codecs. The first and second streams are set by default to H.264. The third stream is set by default to MJPEG.
3. Resolution- Set Resolution for each stream. The better the resolution, the more bandwidth it will require to stream images.
4. Frame Rate- Select from 0fps to 30fps. Available frame rate options may differ based on what stream you setup and the available resolutions.
5. GOP- For the H.264 streams, you can select the number of I-Frames and P-Frames the camera will record. Set the value from 1~120. The camera's default GOP is 20. I-frame records the whole image data. P-frames records only the data which has been changed compared to the I-frame. A GOP (Group of Pictures) is made up of one I-frame and corresponding P-frames.

	Resolution	Codec
1080p	1920 x 1080	H.264
D1	720 x 480	H.264
VGA	640 x 480	H.264, MJPEG
CIF	352 x 240	H.264, MJPEG
QVGA	320 x 240	H.264, MJPEG

The screenshot shows the 'VIDEO CONFIGURATION' page in the Digital Watchdog webviewer. The left sidebar has a menu with 'BASIC', 'VIDEO' (highlighted), 'OSD', and 'MOTION'. Below the menu are links for '> CAMERA', '> NETWORK', and '> SYSTEM'. The main content area has a title 'VIDEO CONFIGURATION' and a table with three columns: Channel, Codec, and Description. Channel 1 is selected with a radio button. The table shows Channel 1 with H.264 codec and H.264 Main description, Channel 2 with H.264 codec and H.264 2ch Sub description, and Channel 3 with M-JPEG codec. Below the table is a 'Codec' configuration section for H.264. It includes fields for Resolution (720P), Frame Rate (28), GOP (20), Bitrate Mode (CBR), Target Bitrate (2923), and Quality (7). An 'APPLY' button is at the bottom right. The footer of the page says '© Digital Watchdog. All Rights Reserved.'

Channel	Codec	Description
☒ 1	H.264	H.264 Main
☐ 2	H.264	H.264 2ch Sub
☐ 3	M-JPEG	

Codec

Codec: H.264

Resolution: 720P

Frame Rate: 28

GOP: 20 [1~120]

Bitrate Mode: CBR

Target Bitrate: 2923 [100Kbps~8Mbps]

Quality: 7 [1~10]

APPLY

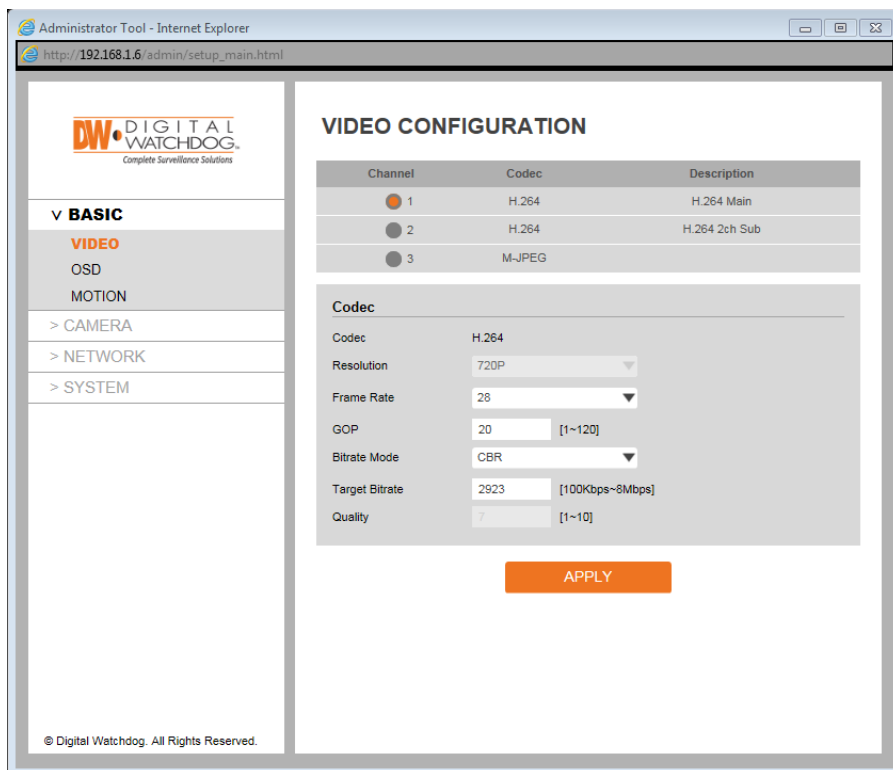
© Digital Watchdog. All Rights Reserved.

WEBVIEWER*

Setup > Basic > Video

The MEGApix® camera allows you to setup 3 different streams to optimize storage and bandwidth usage.

6. Bitrate Mode- For the H.264 streams, select the bitrate mode from the available options in the drop-down menu.
 - a. CBR- If selected, the camera's video quality will vary according to the network traffic to avoid freezing or video loss.
 - b. VBR- If selected, the camera's frame rate will vary according to the network traffic to avoid freezing or video loss.
7. Target Bitrate- If CBR Bitrate is selected, set the encoding target bitrate (average) between 100Kbps to 8Mbps.
8. Quality- If VBR is selected as the bitrate mode in the H.264 streams, or if the MJPEG stream is selected, set the video quality from 1 ~ 10.



Administrator Tool - Internet Explorer
http://192.168.1.6/admin/setup_main.html

DW DIGITAL WATCHDOG
Complete Surveillance Solutions

▼ **BASIC**

VIDEO

OSD

MOTION

> CAMERA

> NETWORK

> SYSTEM

VIDEO CONFIGURATION

Channel	Codec	Description
1	H.264	H.264 Main
2	H.264	H.264 2ch Sub
3	M-JPEG	

Codec

Codec: H.264

Resolution: 720P

Frame Rate: 28

GOP: 20 [1~120]

Bitrate Mode: CBR

Target Bitrate: 2923 [100Kbps~8Mbps]

Quality: 7 [1~10]

APPLY

© Digital Watchdog. All Rights Reserved.

WEBVIEWER*

Setup > Basic > OSD

The MEGApix® camera allows you to setup OSD text and position.

1. Date/Time- Select to show/ hide current time on the camera's view. If enabled, use the X/ Y values to adjust the text's position on the camera's view.
2. User Text- Select to add personal text to appear on the camera's view. If enabled, use the X/ Y values to adjust the text's position on the camera's view and enter the text. The user text is limited to 16 characters.

NOTE: When Date/Time is displayed, deletion of the motion detection mask on the area of Date/Time display are strongly recommended to prevent misdetection on changing numbers. However, motion detection will be disabled at the area that masks are off.

The screenshot shows a web browser window titled "Administrator Tool - Internet Explorer" with the address bar displaying "http://192.168.1.6/admin/setup_main.html". The interface is divided into a left sidebar and a main content area. The sidebar contains the "DW DIGITAL WATCHDOG Complete Surveillance Solutions" logo and a navigation menu with "BASIC" expanded, showing "VIDEO", "OSD" (highlighted in orange), and "MOTION". Below these are links for "> CAMERA", "> NETWORK", and "> SYSTEM". The main content area is titled "OSD CONFIGURATION" and contains two sections: "Date/Time" and "User Text". The "Date/Time" section has radio buttons for "Off" and "On" (selected), and input fields for "Start X" and "Start Y" both set to "0" with a range of "[0 ~ 100]". The "User Text" section has radio buttons for "Off" and "On" (selected), input fields for "Start X" and "Start Y" both set to "0" with a range of "[0 ~ 100]", and a "Text" input field with an asterisk icon. An orange "APPLY" button is located at the bottom right of the configuration area. A copyright notice "© Digital Watchdog. All Rights Reserved." is visible at the bottom left of the page.

WEBVIEWER*

Setup > Basic > Motion Detection

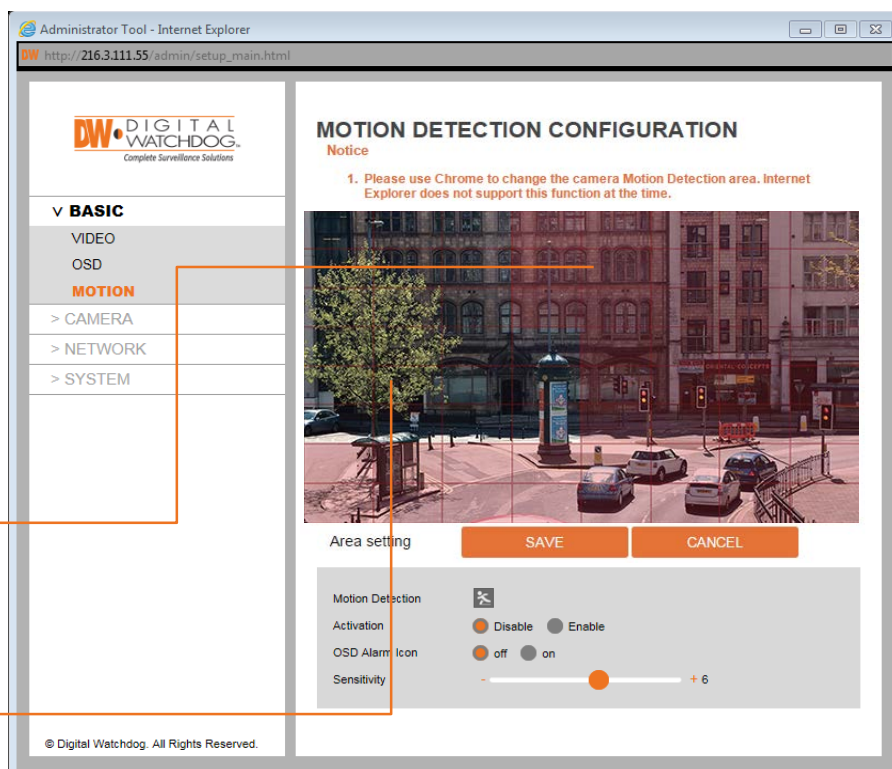
The MEGApix® 1080p™ camera can detect motion in the camera's view. Use this setup page to adjust the motion masking and sensitivity.

Please note, if you are using Internet Explorer, motion zone adjustment is not supported at the time. To change the motion detection area in the camera's view, please use Google Chrome to access the camera's web viewer.

1. Motion Detection Alarm Status – The event alert icon will appear on the screen when motion detection is activated.
2. Activation- If you wish to enable the camera's motion detection, make sure 'Enable' is selected.
3. The camera's motion detection zone will be displayed on the camera's preview screen. areas in red are set to detect motion. To select or deselect an area, click on the corresponding red square or using your mouse, click and hold and drag the mouse's cursor across the camera's image to select multiple motion squares.
4. OSD Alarm Icon – Select to show/ hide OSD Alarm notice when motion is detected. If enabled, a small red motion alarm will appear at the top of the camera's view when motion is detected.
5. Sensitivity- Set the camera's sensitivity to motion. The higher the number, the more sensitive the camera will be to motion in its view.

Masked Area (motion detection is ON)

Unmasked Area (motion detection is OFF)

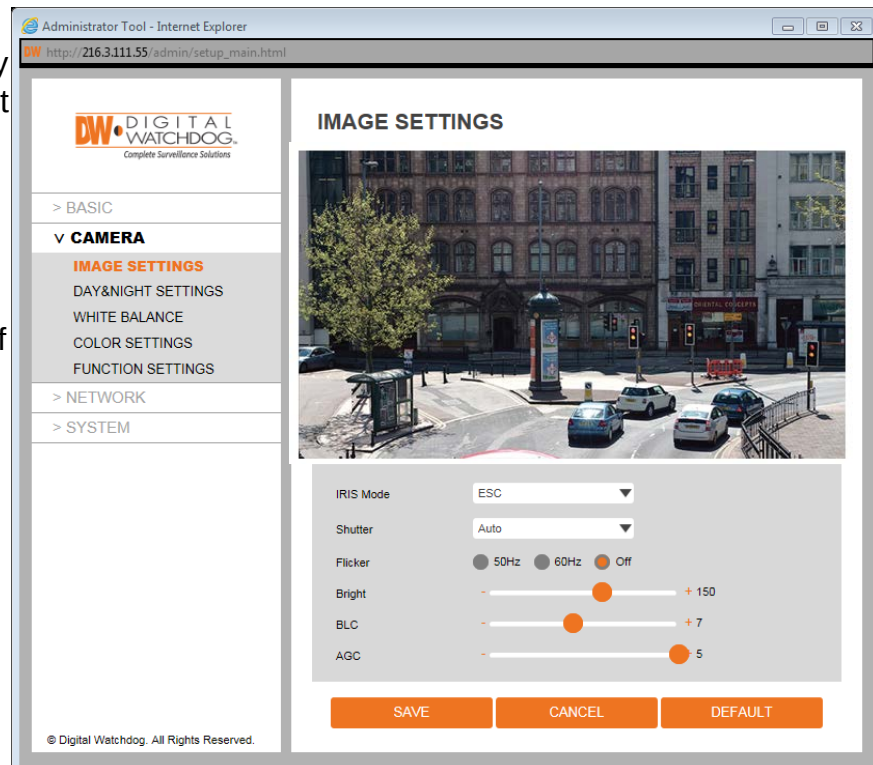


WEBVIEWER*

Setup > Camera > Image Settings

Adjust the MEGApix® 1080p™ camera's Exposure, Day & Night, Color settings.

1. IRIS Mode— Sets the camera's Iris mode. Select from ESC, HOLD or DC.
 - a. DC (Auto Iris): If the lighting conditions are very bright the lens will close the iris to reduce the amount of light that is passing to the imaging sensor.
 - b. ESC (Electronics Shutter Control): The shutter speed is controlled automatically according to the brightness of the scene.
 - c. HOLD: Stop the Iris related functions.
1. Shutter— Set the camera's shutter speed. By default, the shutter speed is set to Auto. You can also manually select from 1/25 ~ 1/10000.
2. Flicker— In case the camera's image appears flickering, you can adjust the Hz levels between 50Hz and 60Hz.
3. Bright — Adjust the camera's brightness by controlling the shutter exposure value. Set the bright value from 0~255. The higher the number, the brighter the image will appear. Default value is 150.
4. Back Light Compensation (BLC)— Adjust the camera's capture of light when there is strong backlight in the camera's Field of View [FoV]. Select to enable or disable.
5. AGC— Auto Gain Control. The higher the AGC levels are, the camera's view will appear brighter. However, the higher the AGC levels are, the more digital noise will be visible.

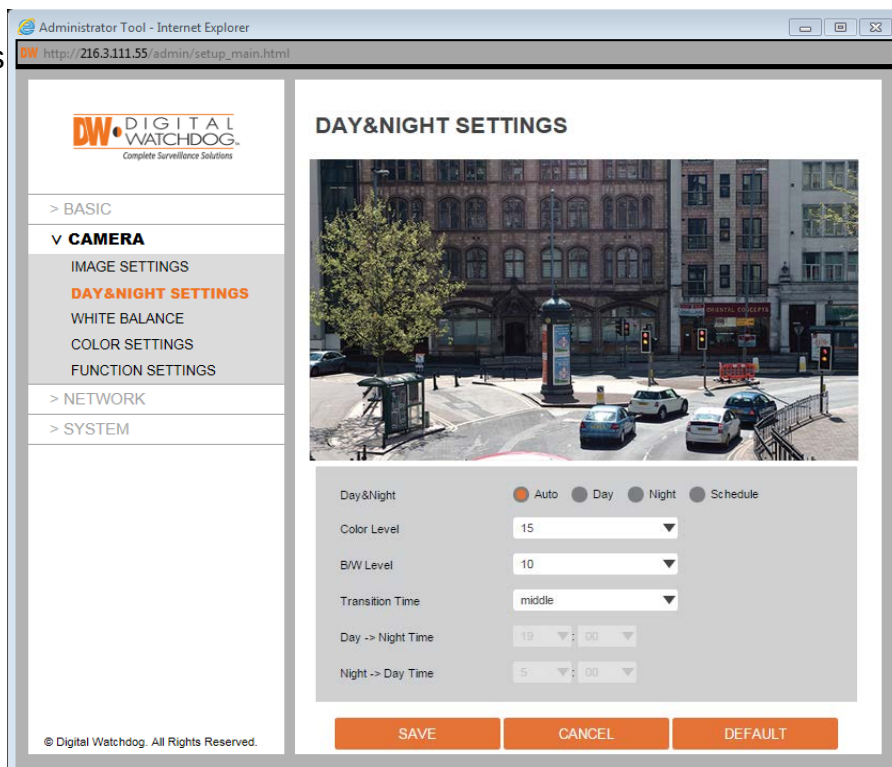


WEBVIEWER*

Setup > Camera > Day & Night Settings

Adjust the MEGApix® 1080p™ camera's Day & Night, Image and Color settings.

1. Day / Night – select the camera's color mode.
 - a. Auto – The camera will switch between color and B/W automatically based on the levels of light in the camera's Field of View (FoV).
 - b. Day – Manually use the camera's True Day/Night IR cut filter the camera's view to day mode regardless of the light levels in the camera's FoV.
 - c. Night – Manually removes the True Day/Night IR cut filter from the camera's lens and turns the camera's view to night mode regardless of the light levels in the camera's FoV.
 - d. Schedule – Set the camera to switch between day and night mode by schedule, regardless of the light levels in the camera's FoV. If enabled, set the start and end time for when the camera switches from day to night mode, and when switching from night to day mode.
2. On IR Models: If Day/Night mode is set to Auto, adjust the Color and B/W levels
 - a. Color Level– Adjust the level when the camera switches from night mode to day mode.
 - b. B/W Level– Adjust the level when the camera switches from day mode to night mode.

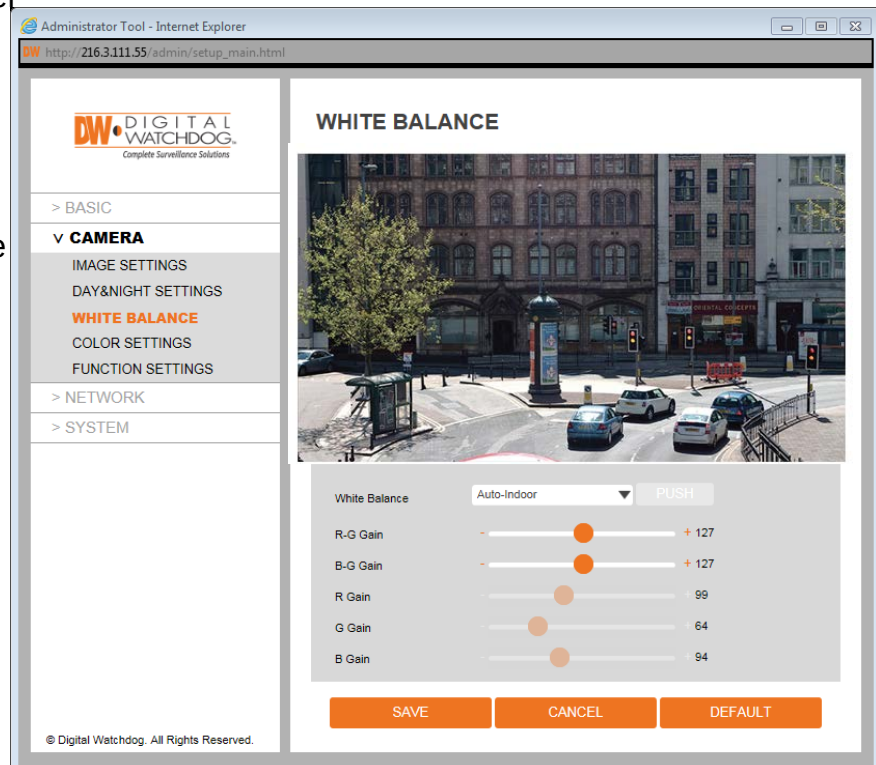


WEBVIEWER*

Setup > Camera > White Balance

Adjust the MEGApix® 1080p™ camera's Day & Night, Image and Color settings.

1. White 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.
 - a. Auto-Indoor: White balance is adjusted automatically for Indoor illumination. Adjust R-G/B-G gain.
 - b. Auto-Outdoor: White balance is adjusted automatically for Sun light. Adjust R-G/B-G gain.
 - c. Push: Click the 'Push' button continuously until screen image attain an ideal WB.
 - d. Manual: The R/G/B gain level can be set up manually.
 - e. Hold: Hold current status.
- a. R-G Gain – The lower the number, the image will appear green. The higher the number, the image will appear red. Default value is 127. The lower the number, the more red color the image will have. The higher the number the more green color the image will have.
- b. B-G Gain – The lower the number, the image will appear green. The lower the number, the more yellow color the image will have. The higher the number, the more blue color the image will have. Default value is 127.
- c. R Gain – The lower the number, the image will appear green. The higher the number, the image will appear red. Default value is 99.
- d. G Gain – The lower the number, the image will appear pink. The higher the number, the image will appear green. Default value is 64.
- e. B Gain – The lower the number, the image will appear yellow. The higher the number, the image will appear blue. Default value is 64.

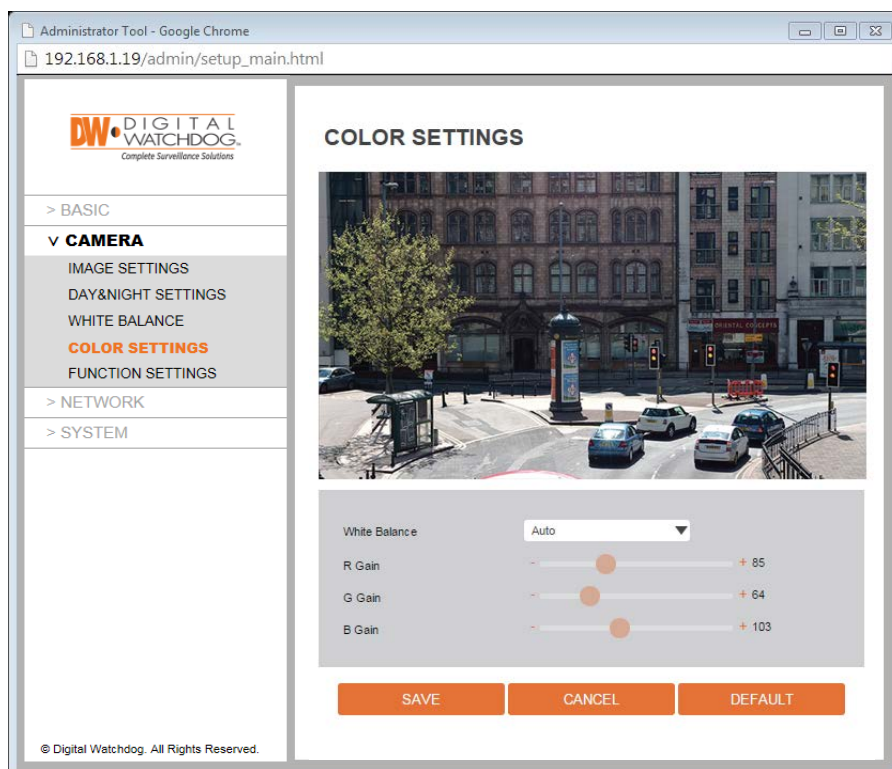


WEBVIEWER*

Setup > Camera > Color Settings

Adjust the MEGApix® 1080p™ camera's Day & Night, Image and Color settings.

1. Sharpness – Sets the image sharpness from 0~255. The higher the number, the sharper the image. Default value is 10.
2. Brightness – Set the brightness of the camera's image from -128~127. The higher the number, the brighter the camera's image will appear. Default value is -5.
3. Contrast– Set the level of contrast between colors in the camera's image. The higher the number, the brighter and more contrast will be in the image's colors. Set from 0~255. Default value is 140.
4. Saturation – Set the camera's saturation levels from 0~255. The higher the number, the more vibrant will the colors appear on the camera's image. The lower the number, the more black and white the image will appear. Default value is 32.
5. Hue – set the camera's hue levels from 0~255. The higher the number, the camera's image will use warmer tones. The lower the number, the camera's image will use cooler color tones. Default value is 0.

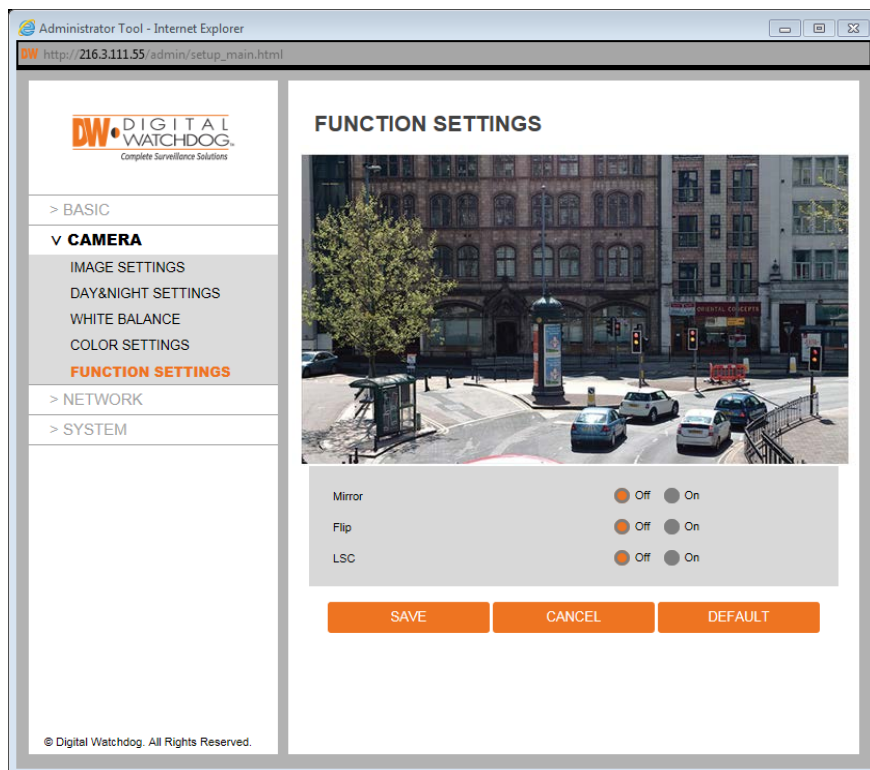


WEBVIEWER*

Setup > Camera > Function Settings

Adjust the MEGApix® 1080p™ camera's Day & Night, Image and Color settings.

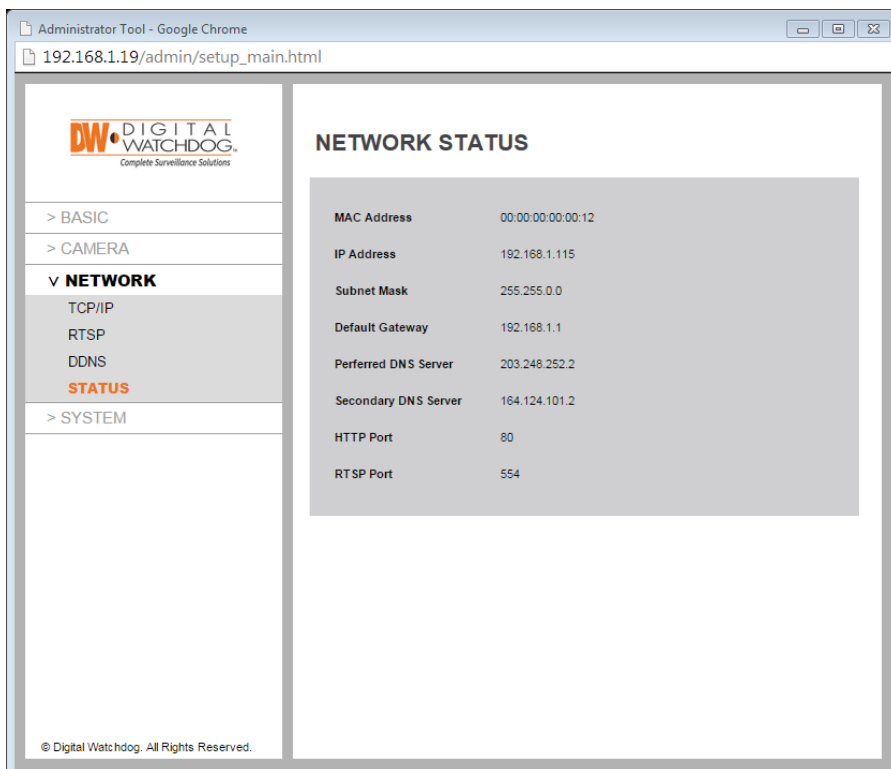
1. Mirror – Chose to flip the camera's view horizontally.
2. Flip – Choose to flip the camera's view vertically.
3. LSC – Lens Shading Compensation. This function can compensates the difference in signal amplitude according to the position of pixels to preserve the quality of the original image.



WEBVIEWER*

Setup > Network > Network Status

This screen will display all of the camera's network information, including MAC and IP Addresses, subnet mask, gateway, DNS and ports information.



NETWORK STATUS	
MAC Address	00:00:00:00:00:12
IP Address	192.168.1.115
Subnet Mask	255.255.0.0
Default Gateway	192.168.1.1
Perferred DNS Server	203.248.252.2
Secondary DNS Server	164.124.101.2
HTTP Port	80
RTSP Port	554

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WEBVIEWER*

Setup > Network > Network Settings

Use this setup menu to configure the camera's network type and manually enter the network and port information.

1. Network Type – Select the network type as DHCP or Static. If DHCP is selected, the camera will automatically get its network settings from the router. If static is selected, manually enter the camera's IP address, subnet mask, gateway and DNS information in the fields below
2. IP Setup –
 - 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. DNS- Enter Primary DNS and Secondary DNS. The Domain Name Server translates web addresses to IP addresses
3. HTTP Port – The camera's default web port is 80. If needed, enter a different port number in the field.

NOTE: Contact your Internet Service Provider or Network Administrator to obtain the proper network information.

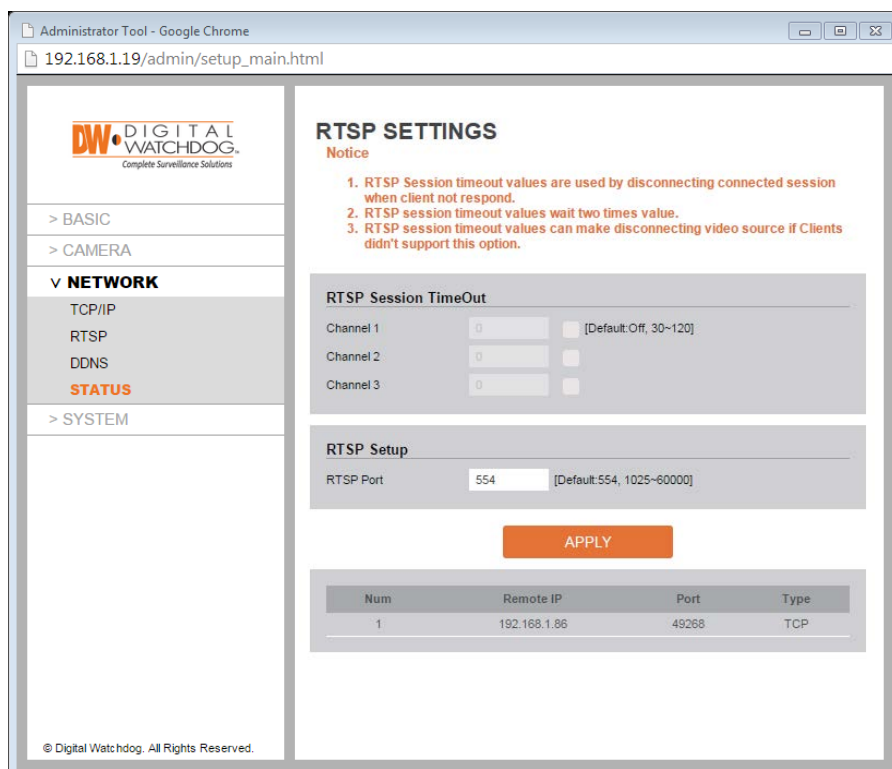
The screenshot shows a web browser window titled 'Administrator Tool - Google Chrome' with the address bar displaying '192.168.1.19/admin/setup_main.html'. The interface is for 'DIGITAL WATCHDOG Complete Surveillance Solutions'. On the left is a navigation menu with options: > BASIC, > CAMERA, v NETWORK (selected), TCP/IP, RTSP, DDNS, STATUS, and > SYSTEM. The main content area is titled 'NETWORK SETTINGS' and contains three sections: 'Network Type' with radio buttons for 'Static' (selected) and 'Dynamic'; 'IP Setup' with input fields for 'IP Address' (192.168.1.114), 'Subnet Mask' (255.255.0.0), 'Default Gateway' (192.168.1.1), 'Preferred DNS Server' (203.248.252.2), and 'Secondary DNS Server' (211.33.40.5); and 'Port Setup' with an 'HTTP Port' field set to 80 and a default range of [Default: 80, 1025 ~ 60000]. An orange 'APPLY' button is at the bottom right. A copyright notice '© Digital Watchdog. All Rights Reserved.' is at the bottom left.

WEBVIEWER*

Setup > Network > RTSP Settings

Use this setup menu to configure the camera's RTSP Connection information. The camera must be connected to a server using the RTSP URL in order for these settings to apply.

1. RTSP Session Time Out – Check the box to enable RTSP time out for each of the camera's streams. When enabled, the RTSP connection will time out if a client become non-responsive after the set dwell time. Set the dwell time from 30~120 seconds.
2. RTSP Setup – The RTSP's default port is 554. if needed, adjust the port.
3. All RTSP connections to the camera will be listed in the table at the bottom of the screen.



Administrator Tool - Google Chrome

192.168.1.19/admin/setup_main.html

DW DIGITAL WATCHDOG
Complete Surveillance Solutions

> BASIC

> CAMERA

v NETWORK

TCP/IP

RTSP

DDNS

STATUS

> SYSTEM

RTSP SETTINGS

Notice

1. RTSP Session timeout values are used by disconnecting connected session when client not respond.
2. RTSP session timeout values wait two times value.
3. RTSP session timeout values can make disconnecting video source if Clients didn't support this option.

RTSP Session TimeOut

Channel 1: 0 [Default: Off, 30~120]

Channel 2: 0

Channel 3: 0

RTSP Setup

RTSP Port: 554 [Default: 554, 1025~60000]

APPLY

Num	Remote IP	Port	Type
1	192.168.1.86	49268	TCP

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WEBVIEWER*

Setup > Network > DDNS

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 Public DDNS checkbox.
2. Use the DDNS service from the available drop-down options. Some of these options may require additional registration at the DDNS website.
3. Enter Host Name. The Host name should be the same as the domain name.
4. If applicable, enter a username and password for the DDNS name.

The screenshot shows a web browser window titled "Administrator Tool - Google Chrome" with the address bar displaying "192.168.1.19/admin/setup_main.html". The page features a sidebar on the left with a logo for "DW DIGITAL WATCHDOG Complete Surveillance Solutions" and a navigation menu with options: "> BASIC", "> CAMERA", "v NETWORK" (expanded), "TCP/IP", "RTSP", "DDNS" (highlighted in orange), "STATUS", and "> SYSTEM". The main content area is titled "DDNS CONFIGURATION" and contains two radio buttons: "Disable" (selected) and "Public DDNS". Below these are four input fields: "Address" (with a dropdown menu showing "www.no-ip.com"), "Host Name", "User Name", and "Password". An orange "APPLY" button is positioned at the bottom right of the configuration area. A copyright notice "© Digital Watchdog. All Rights Reserved." is visible at the bottom left of the page.

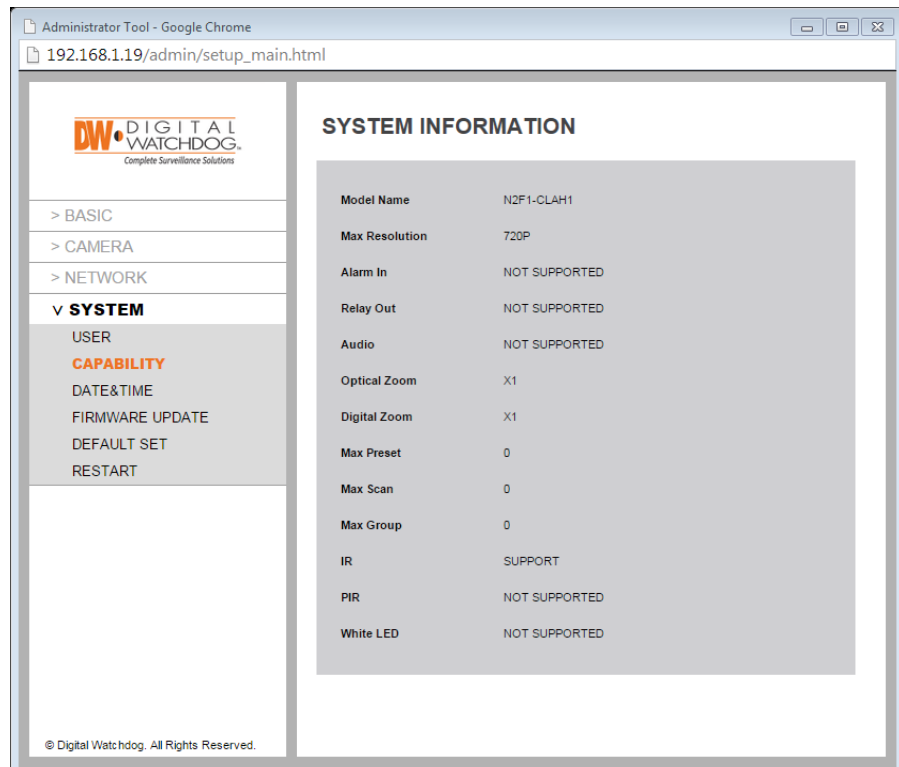
WEBVIEWER*

Setup > System > System Information

View the MEGApix® 1080p™ camera's basic information.

This page displays the camera's main information including:

1. Model Name – View the camera's model name
2. Max Resolution – View the cameras highest supported resolution.
3. Alarm In – View if the camera has a supporting alarm input interface.
4. Relay Out – View if the camera has a supporting relay output control.
5. Audio – View if the camera has a supporting audio input interface.
6. Optical Zoom – View the camera's maximum remote optical zoom control.
7. Digital Zoom – View the camera's maximum remote digital zoom control.
8. Max Preset – For PTZ cameras, view the max number of presets supported.
9. Max Scan – For PTZ cameras, view the max number of scans supported.
10. Max Group – For PTZ cameras, view the max number of groups supported.
11. IR – View if the camera supports built-in IR LEDs.
12. PIR – View if the camera supports external IR LEDs integration.
13. White LED – View if the camera supports White LED integration.



WEBVIEWER*

Setup > System > Firmware Update

View the MEGApix® 1080p™ camera's current firmware version, check the FTP for updates or manually update your camera's firmware.

Use this setting page to upgrade the camera's firmware. The information at the top of the page shows the camera's current firmware version.

1. Version Information – This section will show the camera's current version.
2. Web Update – To manually update the camera's firmware:
 - a. Click on the 'Select File' button.
 - b. Browse and select the camera's firmware file. To check for the latest firmware, click on the link to Digital Watchdog's website, or go to www.digital-watchdog.com.
 - c. When the proper file has been selected, press the 'Start F/W Update' button.
3. FTP Update – The camera can also check Digital Watchdog's FTP for new firmware.
 - a. Click the 'Check' button.
 - b. If a new firmware is available, press the 'Start F/W Update' button.
 - c. Digital Watchdog's FTP Info:
FTP Address: ftp.dwcc.tv
ID: dwmpix
Password: dwmpix
Location: /

The screenshot shows a web browser window titled 'Administrator Tool - Google Chrome' with the address bar displaying '192.168.1.19/admin/setup_main.html'. The page layout includes a left sidebar with a menu: > BASIC, > CAMERA, > NETWORK, and a collapsed > SYSTEM section. Under SYSTEM, the options are USER, CAPABILITY (highlighted in orange), DATE&TIME, FIRMWARE UPDATE, DEFAULT SET, and RESTART. The main content area is titled 'FIRMWARE UPDATE' and contains a 'Notice' with two red warning points: '1. Do not power off during update. It may cause fatal system damage.' and '2. Please do not select other menus while uploading firmware file.' Below the notice are three sections: 'Version Information' showing 'System 1.2.0(764)_20150212'; 'Web update' with a 'Firmware File' label and a 'Select file' button; and 'FTP user information' with input fields for 'Ftp Address' (192.168.1.88), 'Port' (21), 'ID' (dwmpix), 'Password' (masked with asterisks), 'Location' (/), and 'Status'. A 'START F/W UPDATE' button is positioned between the Web update and FTP sections. At the bottom of the page are three buttons: 'SAVE', 'CANCEL', and 'CHECK'. A copyright notice '© Digital Watchdog. All Rights Reserved.' is at the very bottom left.

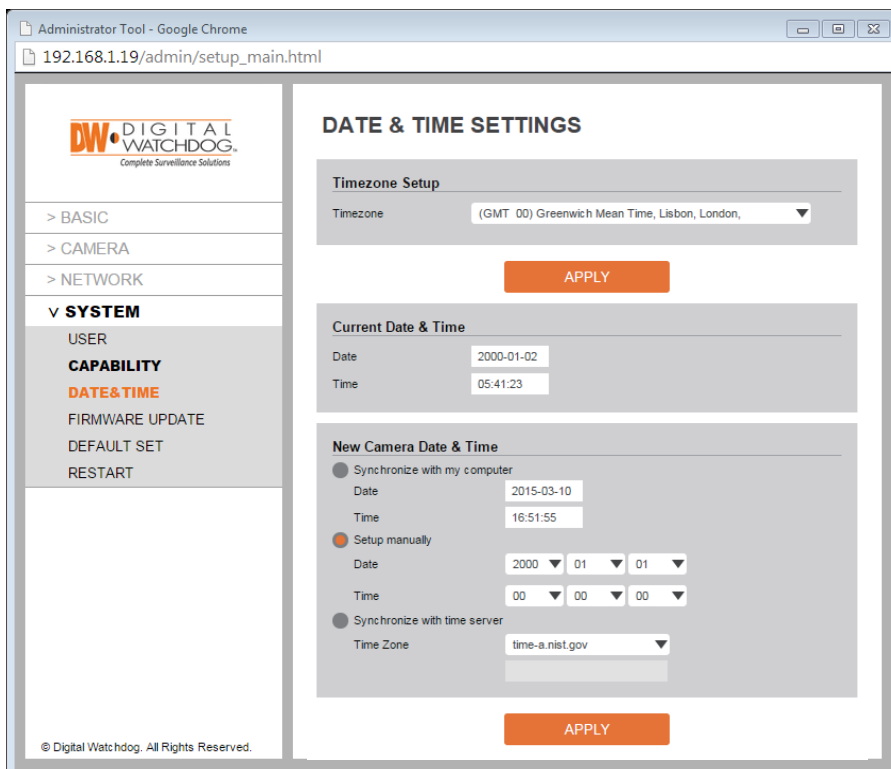
WEBVIEWER*

Setup > System > Date & Time

View the MEGApix® 1080p™ camera's basic information.

This page displays the camera's current time and date & time setting options:

1. Time Zone– Select the appropriate time zone from the drop-down menu.
2. Current Date & Time – This section displays the camera's current date and time.
3. Synchronization Options – Select the date & time synchronization options for the camera.
 - a. Synchronize with my Computer– You can also set the camera to sync its time with your computer's settings by pressing the 'SYNC' button.
 - b. Setup Manually – You can manually enter the camera's date and time.
 - c. Synchronize with a time server – you can setup the camera to synch its time and date with an NTP server. Select from the servers in the drop-down list.
4. Click apply to apply the date & time changes to the camera.



The screenshot shows a web browser window titled "Administrator Tool - Google Chrome" with the URL "192.168.1.19/admin/setup_main.html". The page displays the "DATE & TIME SETTINGS" configuration interface for a Digital Watchdog camera. On the left is a navigation menu with options: BASIC, CAMERA, NETWORK, and SYSTEM (expanded). Under SYSTEM, there are links for USER, CAPABILITY, DATE&TIME (highlighted), FIRMWARE UPDATE, DEFAULT SET, and RESTART. The main content area is divided into three sections: "Timezone Setup" with a dropdown menu set to "(GMT -00) Greenwich Mean Time, Lisbon, London" and an "APPLY" button; "Current Date & Time" showing the current date as "2000-01-02" and time as "05:41:23"; and "New Camera Date & Time" with three radio button options: "Synchronize with my computer" (selected), "Setup manually" (with date and time dropdowns), and "Synchronize with time server" (with a time zone dropdown). Each section has an "APPLY" button at the bottom. The footer of the page reads "© Digital Watchdog. All Rights Reserved."

WEBVIEWER*

Setup > System > User Management

Use the User Setting page to set a new password or change the username for the camera's admin user. To change the admin's password, type and retype the new password in the corresponding fields and click 'Apply'.

The screenshot shows a web browser window titled "Administrator Tool - Google Chrome" with the address bar displaying "192.168.1.19/admin/setup_main.html". The interface is divided into two main sections. On the left is a sidebar menu with the "DW DIGITAL WATCHDOG Complete Surveillance Solutions" logo at the top. Below the logo are navigation links: "> BASIC", "> CAMERA", "> NETWORK", and "v SYSTEM". Under the "SYSTEM" section, there are sub-links: "USER" (highlighted in orange), "CAPABILITY", "DATE&TIME", "FIRMWARE UPDATE", "DEFAULT SET", and "RESTART". The main content area on the right is titled "USERS CONFIGURATION". It contains a form with three input fields: "ID" (containing "admin"), "Password" (containing "*****"), and "Verify" (containing "*****"). Each password field has a small circular icon with a question mark to its right. Below the form are two orange buttons: "SAVE" and "CANCEL". At the bottom left of the main content area, there is a copyright notice: "© Digital Watchdog. All Rights Reserved."

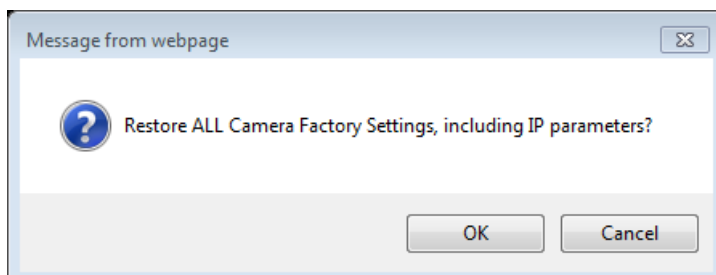
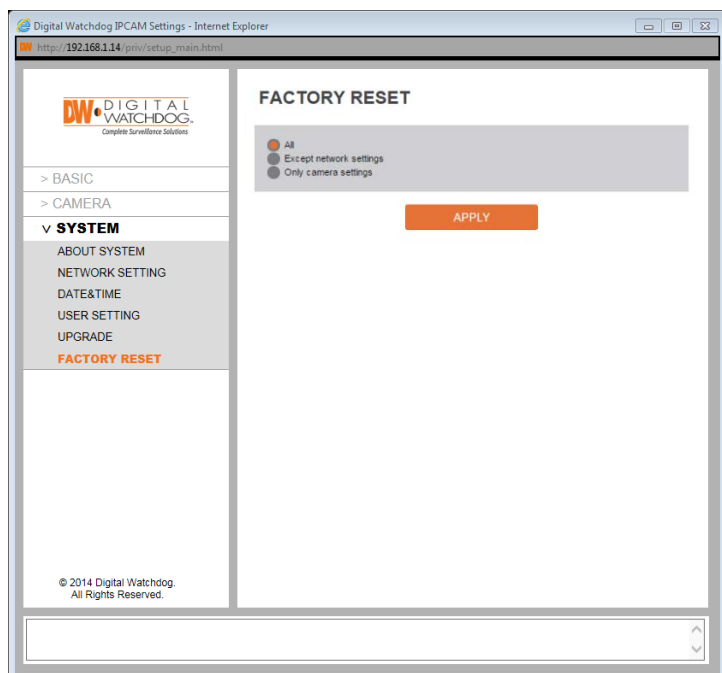
WEBVIEWER*

Setup > System > Factory Reset

View the MEGApix® 1080p™ camera's basic information.

The Factory Rest page allows you to reboot the camera or reset its settings to factory default.

1. Reboot – press the 'Reboot' button to reboot and power cycle the camera.
2. Factory Reset without IP – Select to reset the camera's settings back to factory default. If this option is selected, all settings except for the camera's network settings with be deleted and reset to their factory default. Press OK in the confirmation window to complete the reset.
3. Factory Reset with IP – Select to reset the camera's settings back to factory default. If this option is selected, all settings, including the camera's network settings, with be deleted and reset to their factory default. Press OK in the confirmation window to complete the reset.



SPECIFICATIONS*

IMAGE

Image Sensor	1/2.7" 2.1M CMOS
Effective Pixels	1930 (H) x 1088 (V)
Minimum Scene Illumination	F2.0 (30IRE): 1.4 Lux [Color], F2.0 (30IRE): 0.00 Lux [B/W]
Focal Length	DWC-MV72i4V: 4.0mm Fixed Lens, 82° Horizontal Viewing Angle DWC-MV72i28V: 2.8mm Fixed Lens, 109° Horizontal Viewing Angle
IR Distance	50ft Range IR

OPERATIONAL

Shutter Mode / Speed	Auto, 1/30sec ~ 1/10000sec
Auto Gain Control	Max 64dB
Day and Night	Auto/ Day (Color)/ Night (B/W) / Schedule
White Balance	Auto Indoor / Auto Outdoor / Push / Manual / Hold

NETWORK

LAN	802.3 Compliance 10/100 LAN
Video Compression Type	H.264, MJPEG
Resolution / Frame Rate	1080p / D1 / VGA / CIF / QVGA, Up to 30fps at All Resolutions
Stream Capability	Dual-Stream at Different Rates and Resolutions
Maximum User Access	4 Users
Web Viewer	OS: Windows 7 or higher Browser: Internet Explorer, Google Chrome, Firefox

ENVIRONMENTAL

Operating Temperature / Humidity	-10°C ~ 50°C (14°F ~ 122°F), Less than 90% (Non-Condensing)
IP Rating	IP67 Certified (Protects against dust and high pressure water)

Electrical

Power Requirement	DV12V, PoE [IEEE802.3af, Class 2]
Power Consumption	IR LED Off: 1.9W, 155mA IR LED On: 3W, 250mA

Mechanical

Dimensions	4.13 x 2.38 in (105 x 60.7mm)
Weight	0.95lbs (350g)

TROUBLESHOOTING

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

I can't find my MEGApix® 1080p™ 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 light turned on and blinking?
The camera's LED lights indicate that the camera is powered on. Blinking LED light 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 (IR LED Off: 12V, 160mA, IR LED On: 12V, 230mA), PoE Ports (Class 2, less than 5W)
- 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® 1080p™ 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 192.168.1.80
From your desktop, go to Start > Programs > Accessories > Command Prompt. Type “ping 192.168.1.80” 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 different 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 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® 1080p™ 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® 1080p™ 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® 1080p™ 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 camera. *See below for more information.
- If Yes, did you install all required **FbVLC** files? These are VLC media files that allows the camera to stream its video to the web client.
When you connect to your MEGApix® 1080p™ camera for the first time, your browser will ask you to install **FbVLC**. Make sure your Web Browser's security settings do not block pop-up windows and allows **FbVLC** 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.

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

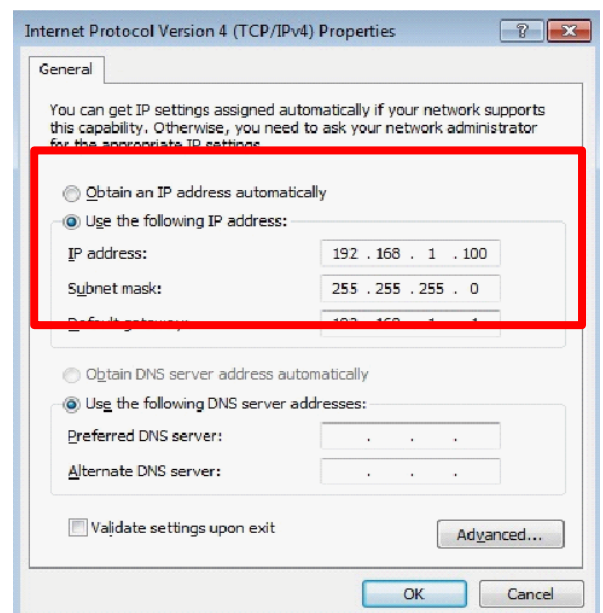
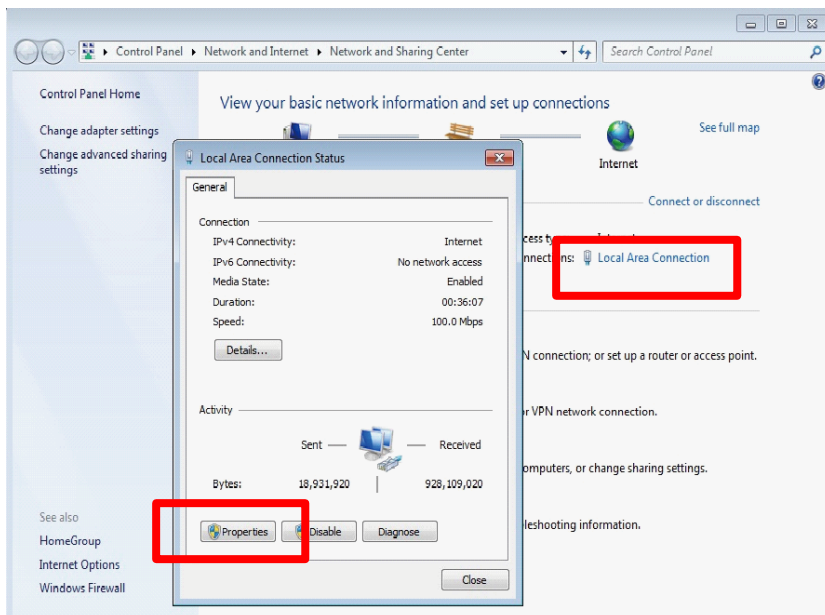
Dynamic Host Configuration Protocol (DHCP) is the default setting for the camera.

If the MEGApix® 1080p™ 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 192.168.1.80, and the default subnet mask will be 255.255.255.0.

The MEGApix® 1080p™ 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.

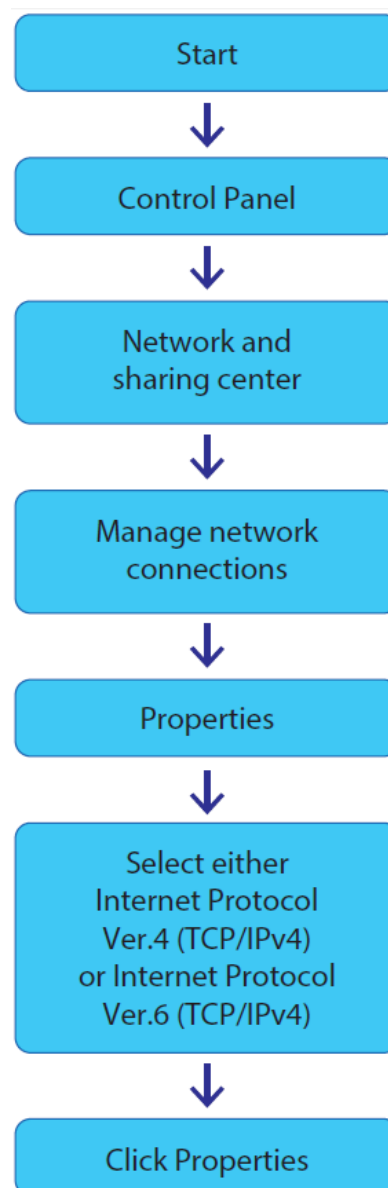


TROUBLESHOOTING

Current TCP/IP Settings

If your IP settings are obtained automatically, you could use the MS-DOS prompt (or Command Prompt) to determine your IP address.

To check your PC's TCP/ IP Settings (Windows Vista or Windows 7):



Under the 'General' tab of the TCP/IP Properties you will see your IP address information.

WARRANTY INFORMATION*

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

Labor: For the initial five (5) 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 five (5) years.

To obtain warranty or out of warranty service, please contact a technical support representative at 1-866-446-3595 Monday through Friday from 9:00AM 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*

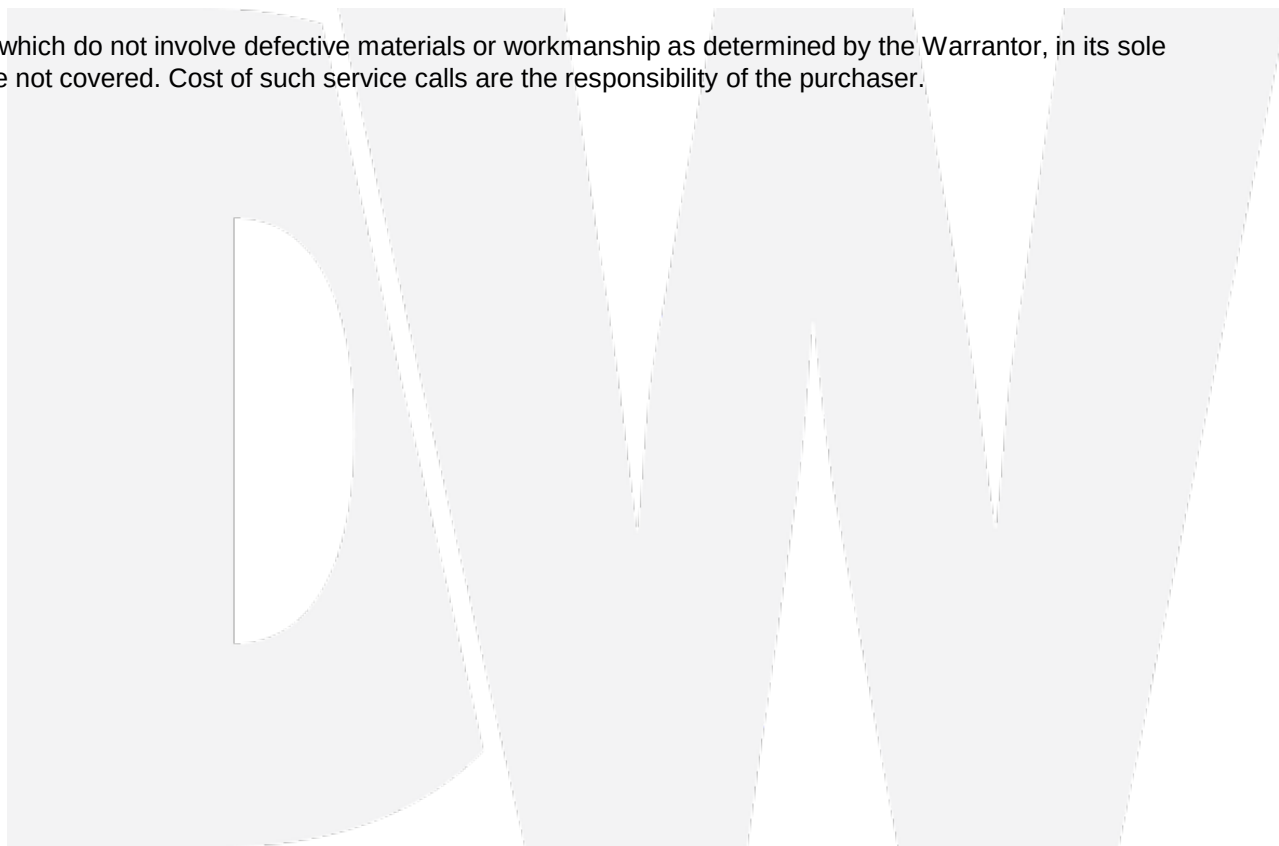
There are no express warranties except as listed above. The Warrantor will not be liable for incidental or consequential damages (including, without limitation, damage to recording media) resulting from the use of these products, or arising out of any breach of the warranty. All express and implied warranties,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





Headquarters Office: 5436 W Crenshaw St, Tampa, FL 33634
Sales Office: 16220 Bloomfield Ave., Cerritos, California, USA 90703
PH: 866-446-3595 | FAX: 813-888-9262
www.Digital-Watchdog.com
technicalsupport@dwcc.tv
Technical Support PH:
USA & Canada 1+ (866) 446-3595
International 1+ (813) 888-9555
French Canadian 1+ (514) 360-1309
Technical Support Hours: Monday-Friday
9:00am to 8:00pm Eastern Standard Time