DIGITAL WATCHDOG
Everything's Digital

MEGAPIX MC421D
IP 2.1MP Color Box Camera

Quick Setup Guide

HD 1080 | CODEC 3 | Onvif | UPnP

PREPARATION

The following items are included with the MC421D camera

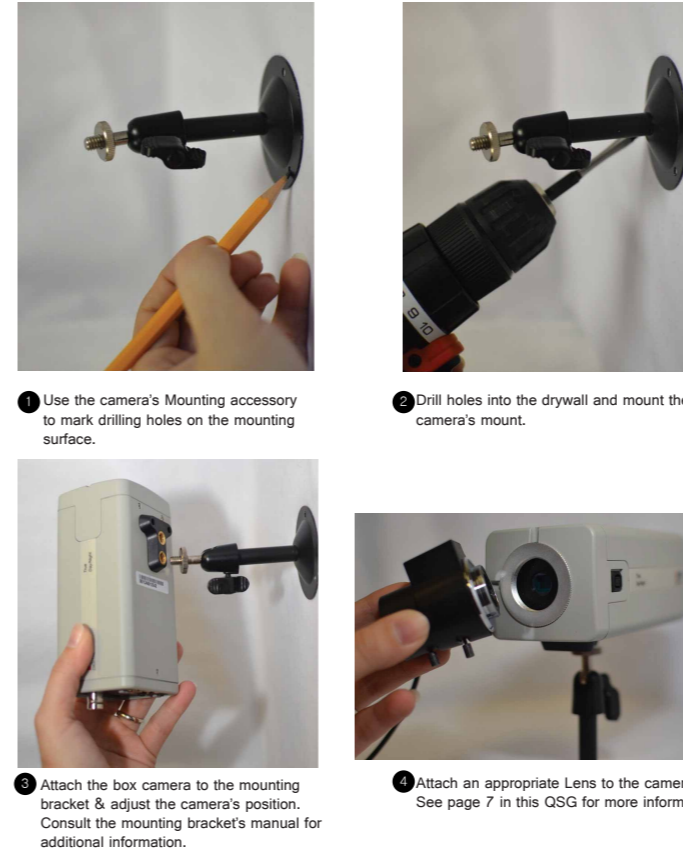|		
Quick Start Guide	MEGAPIX MC421D IP 2.1MP Color Box Camera Quick Setup Guide	CD (Manual & Software)
L-Wrench		CS Lens Mount Adapter
Audio In/ Out Cable		DC Iris Block
		Color Box IP Camera
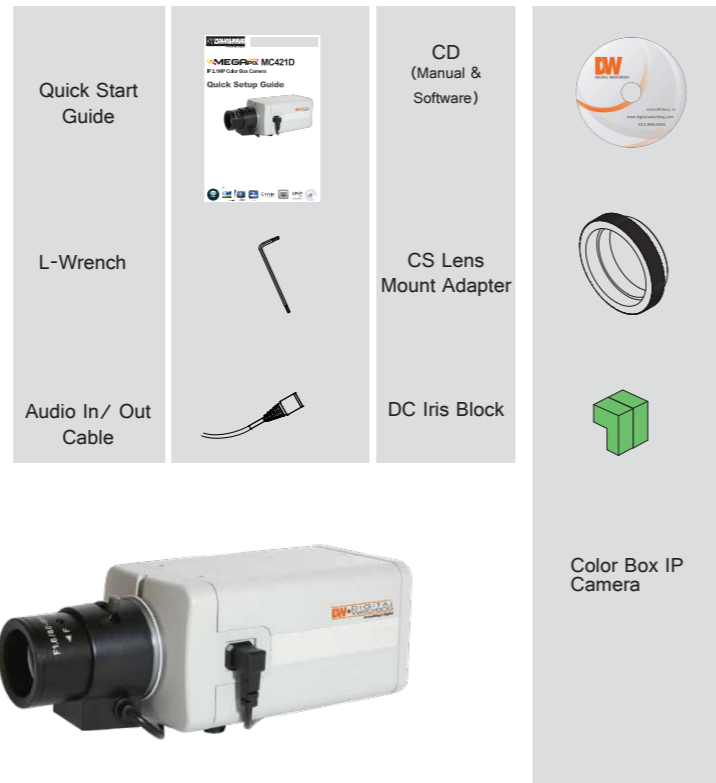
Thank you for purchasing Digital Watchdog's Snapit MEAPIX IP Box Camera.
Before installing the camera, please verify your model and read this guide carefully.

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INSTALLATION

Prepare the Camera and Mounting Surface

❶ Use the camera's Mounting accessory to mark drilling holes on the mounting surface.

❷ Drill holes into the drywall and mount the camera's mount.

❸ Attach the box camera to the mounting bracket & adjust the camera's position. Consult the mounting bracket's manual for additional information.

❹ Attach an appropriate Lens to the camera. See page 7 in this QSG for more information.

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SPECIFICATIONS

Lens Specifications

If you are using an automatic iris lens with the camera, the lens has to be connected to the A-Iris socket of the camera. If you are using a lens with manual or fixed iris, this socket is not used.

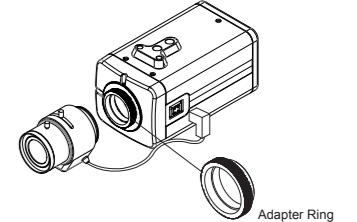*Operation of the camera will be confirmed by the power LED at the rear side of the camera.*

CS-Mount lens
After removing the protecting cap, attach the lens into the camera by turning clockwise.
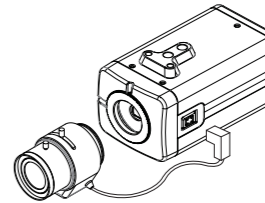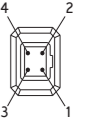
C-Mount lens
1. Attach the C-Mount lens adapter by turning clockwise.
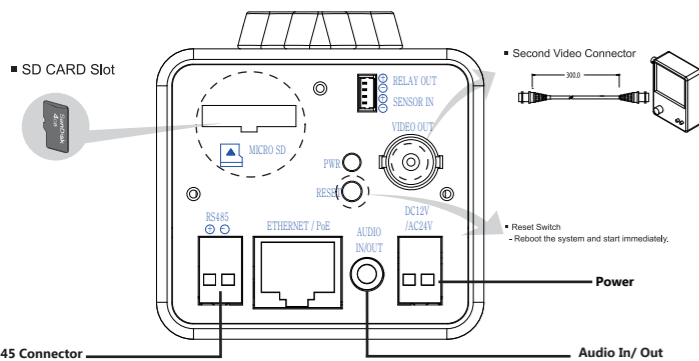2. Attach the lens to the camera by turning clockwise.

Adapter Ring

A-IRIS
DC Driven (DC)
1.control –
2.control +
3.drive +
4.GND

4	2
3	1

NOTE
C-Mount Lens : 10mm or less
CS-Mount Lens : 5mm or less

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Additional Cabling Connections

- SD CARD Slot
- Second Video Connector
- Reset Switch – Reboot the system and start immediately.
- Power
- RJ45 Connector
- Audio In/ Out

RELAY OUT / SENSOR IN
VIDEO OUT
MICRO SD
PWR
RESET
RS485
ETHERNET / PoE
AUDIO IN/OUT
DC12V /AC24V

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, etcetera will be deleted. If a system IP address is lost, reset the camera back to factory default.The following are the default network settings:

| IP Mode	DHCP
IP Address	192.168.1.123
Subnet Mask	255.255.255.0
Gateway	192.168.1.123
Command Port	7000
HTTP Port	80
Live Port	7001
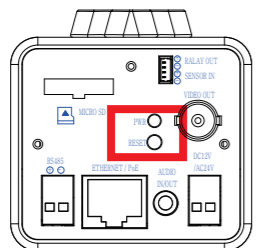
Frequent use may cause a System Error

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Network Connection

There are two options.*

❶ Using a PoE-Enabled Switch

The MEGAPIX Camera is PoE-compliant, allowing transmission of power and data via a single ethernet cable. Follow the illustrations below to connect the camera to a PoE-enabled switch using an ethernet cable.
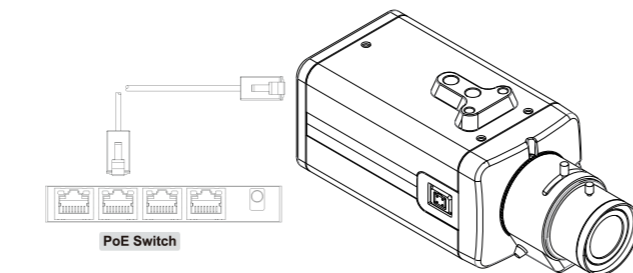
PoE Switch

❷ Using a Non-PoE Switch

If a PoE-enabled switch is not used, use a power adaptor to connect the MEGAPIX Camera to a Non-PoE switch.

DC12V   adaptor (not included)

Non-PoE Switch

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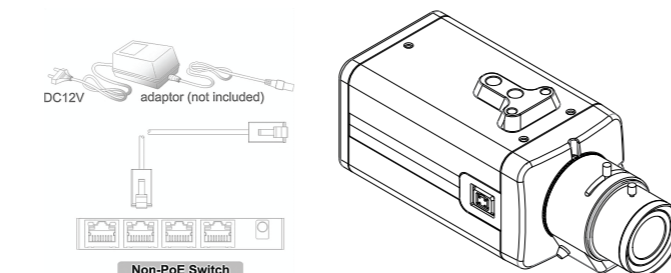
Mount the Camera

The MEGAPIX Camera is designed to be surface mounted on a wall or ceiling.

❻ Locate the SD card slot in the back of the camera module. Insert the SD card in the slot and push it down, until you hear a 'click' sound. See page 16 in this QSG for more information on setting up an emergency recording schedule.

❼ Connect the RJ45 to a CAT5 cable or a power adaptor. If necessary, connect the Audio In and Out, and Relay Control cables. Check the LED light. Green light flickers for booting. Red light turns on when booting is complete.

❽ Adjust the lens' zoom and focus accordingly. Consult the manual for the lens for more information.

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Camera Specifications

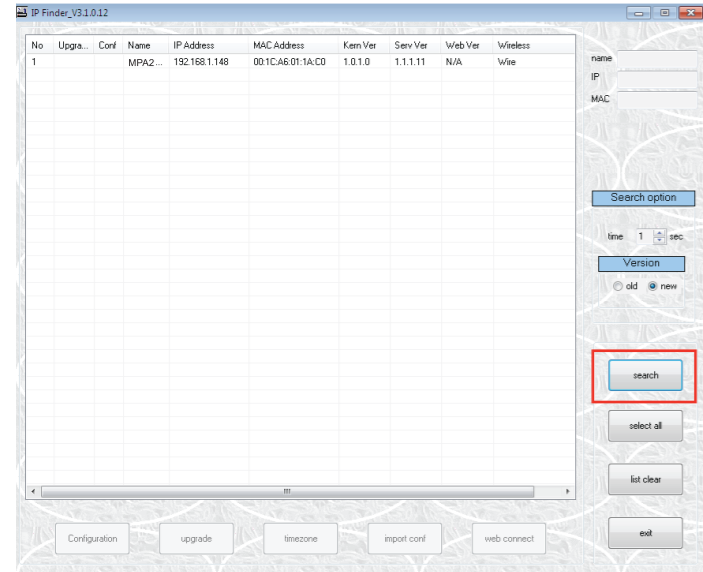| IMAGE	
Image Sensor	1/2.8" Sony CMOS Sensor
Total Pixels	2016 (H) X 1108 (V)
Minimum Scene Illumination	F1.6 (30IRE): 0.5 Lux [Color]
	F1.6 (30IRE): 0.01 Lux [B&W]
AUDIO	
Compression and Sampling Rate	G.711 (8KHz)
Input / Output	1 Line In and 1 Line Out Mono
OPERATIONAL	
Brightness	0~20
Shutter Mode	Auto, Manual
Digital Slow Shutter	Off, 2X, 3X, 4X
DNR (Digital Noise Reduction)	Off/ Low/ Middle/ High
Auto Gain Control	0~20
BLC (Backlight Compensation)	Off, On
WDR (Wide Dynamic Range)	Off, On, Level 0~9
Day and Night	Auto, Day (Color), Night (B/W)
Lens Mode	Manual, DC
Chroma (Hue & Saturation Settings)	0~20
Sharpness	0~10
Mirror & Flip	Off, On
Sensor In/ Out	1 Input/ 1 Output Built-In
Alarm Notifications	Notifications Via E-mail
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
Streaming 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
ONVIF Conformance	Yes
Web Viewer	OS: Windows XP / Vista / 7, MAC OS
	Browser: Internet Explorer, Chrome, Firefox, Safari
Video Management Software	DW Spectrum/ NxMS/ Pivot
Memory Slot	24 hours recording to Micro SDHC Card (4GB-32GB)
	Card Not Included*
ENVIRONMENTAL	
Operating Temperature/ Humidity	-10°C ~ 50°C (14°F ~ 122°F)
Operating Humidity	Less than 90% (Non-Condensing)
Storage Temperature	-20°C ~ 70°C (-4°F ~ 156°F)
Other Certifications	CE, FCC, RoHS
ELECTRICAL	
Power Requirement	DC 12V, PoE (IEEE802.3af Class 2)
Power Consumption	6.5W, 550mA
MECHANICAL	
Material	Aluminum Housing
Dimensions	131.3 X 55 mm (5.2 X 2.17 in)
Weight	0.55 lbs

Specification is subject to change without prior notice

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MEGAPIX CAMERA SETUP

Installing IP Finder

IP Finder searches for all the available network devices on your local area network.

1. Install [icon] **IP Finder** to find the Snapit MEGAPIX Camera on the local network. The **IP Finder** software can be found on the included User Manual CD. Run **IP Finder** and install onto your PC.
2. When setup is complete, launch the **IP Finder** software.
3. To find your Snapit MEGAPIX camera, click **Search** button.
4. Your Sanpit MEGAPIX camera will appear as "DWC-MC421D".
5. To access the camera directly via Internet Explorer, select the desired device and click **Web Connect**. To change basic network settings through the IP Finder software, select the desired device and click **Configuration**. Then, proceed to pages 10-11 for information on setting up the camera on IP Finder.

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Setting the Camera on IP Finder

User can use the IP Finder software to setup the basic network settings.

1. **DHCP:** If DHCP is selected, an IP address will automatically be assigned to the camera. If your network does not support DHCP, a default IP address and subnet mask will automatically be assigned.
2. **PPPoE:** Select this option, when you use WAN service or a PPPoE-based internet service. To use PPPoE, you must contact your Internet Service Provider for a User ID and Password.*
3. **Static IP:** This option will assign a static (fixed) IP to your camera. A static IP address will prevent the network from changing the camera's IP address and make it easier to access, especially when the camera is on a large network and accessed by multiple users. To use static IP, you will need to contact your Internet Service Provider.*
4. **Use DDNS:** Check this option to use DDNS (Dynamic DNS). DDNS allows users to setup a unique URL for the IP camera. To use DDNS, you must register for a DDNS ID from a DDNS Hosting Service.*
5. **Port:** This section displays all the port numbers that are required for remote communication.

Webviewer Specifications

Minimum Requirements for PC

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

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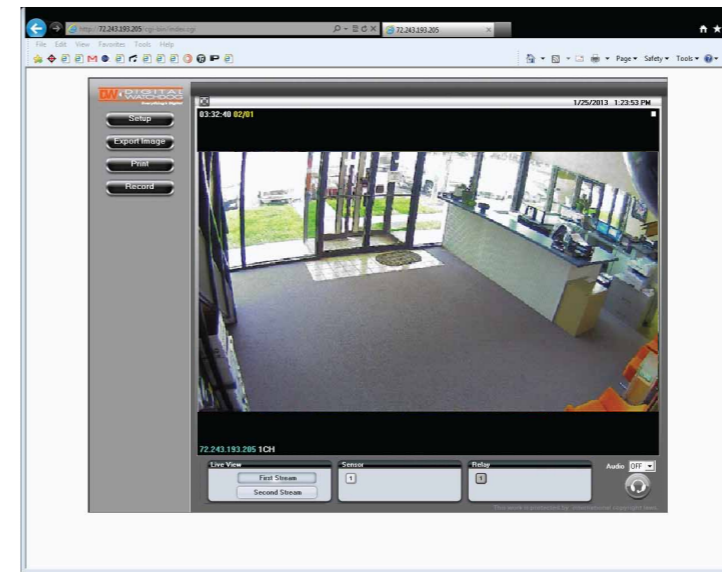## Setting the Camera on IP Finder

Set the Camera for Internal Use

If you wish to connect your Snapit MEGAPIX Camera internally from within the same network:

1. Find your Snapit MEGAPIX Camera on IP Finder software and click **Configuration**.
2. Select an IP Configuration Mode - **DHCP**, **PPPoE**, or **Static** - that is available to you. Recommended Setting is DHCP.*
3. If you wish to use DDNS, select the **Use DDNS** option. See page 10 for further information.
4. When the setup is complete, select **Apply**.
5. Then, select **Reboot** button. The rebooting process usually takes up to a minute.
6. Select **Exit**.
7. On the IP Finder window, select **Search** and comfirm that your changes have been made.

Set the Camera for External Use

If you wish to connect your Snapit MEGAPIX Camera to an external network, please use Static IP.

1. Find your Snapit MEGAPIX Camera on IP Finder software and click **Configuration**.
2. Select **Static** IP Configuration Mode.
3. If you wish to use DDNS, select the **Use DDNS** option. See page 10 for further information.
4. When the setup is complete, select **Apply**.
5. Then, select **Reboot** button. The rebooting process usually takes up to a minute.
6. Select **Exit**.
7. On the IP Finder window, select **Search** and comfirm that your changes have been made.

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Export & Print

Select the Export Image button. A 'Save As' window will appear.
Select the folder you wish to Save in and type a File Name.
Click 'Save' and the screenshot will be saved.*
Select the Print button. The Print Preview window will appear.
Adjust the orientation of the screenshot: portrait or landscape, facing left, right, up, or down.
Zoom in on a portion of an image prior to printing or select the image's scale on the page:
To print information about the screenshot, select View Title.
To add a memo for the screenshot, select Page Option.
Go to Printer Setup to select the printer and manage printer properties.

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Accessing the Camera

Remote Video Monitoring

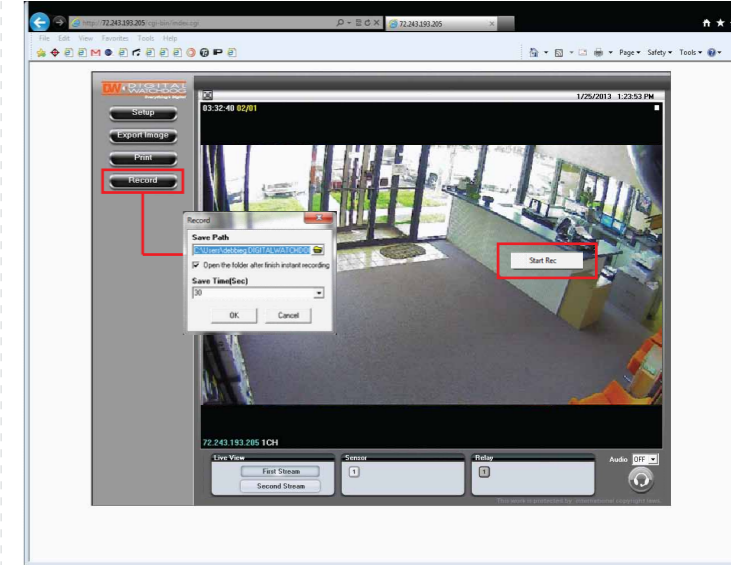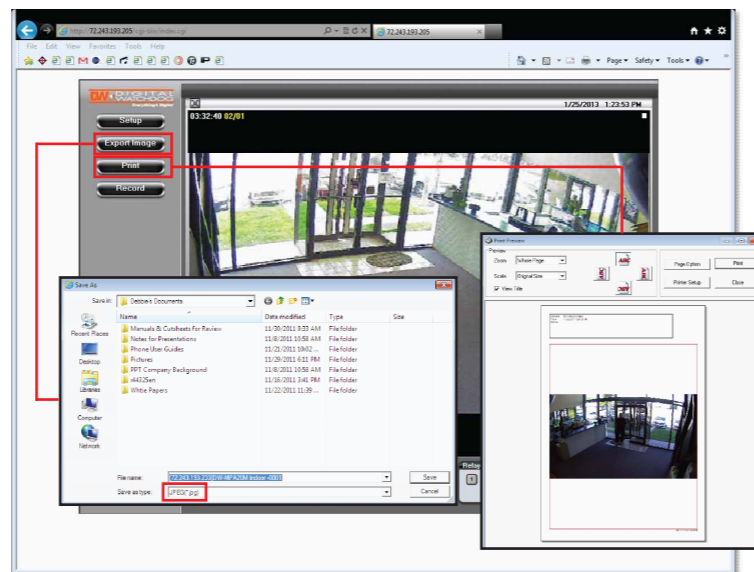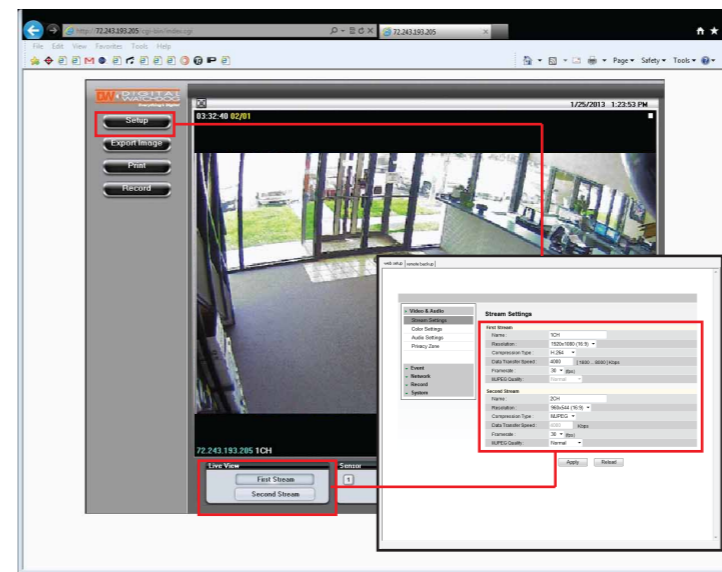
Monitor and configure the Snapit MEGAPIX camera through a built-in webviewer.

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

The web viewer can also be accessed via Google Chrome, Firefox Mozilla and Safari if one of the streams is set to MJPEG

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First Stream & Second Stream

Configure two different stream settings (**First Stream** and **Second Stream**) for monitoring and recording. Second Stream is used to record on Motion Detection and the SD card local backup.

1. Click **Setup** to adjust the two available stream settings: **First Steam** and **Second Stream**. The two streams can differ in Resolution, Compression Type, Data Transfer Speed, and Framerate.
2. 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 **First Stream** button to view the camera with the First Stream settings, and click **Second Stream** button to view the camera with the Second Stream settings.

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Instant Recording

Instantly record live video to your local drive.

To Setup Instant Recording

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

To Start and Stop Instant Recording

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

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SD Card Installation & Setup

The MEGAPIX cameras offer local backup in case of network loss.

Setting up an Emergency Recording Schedule:
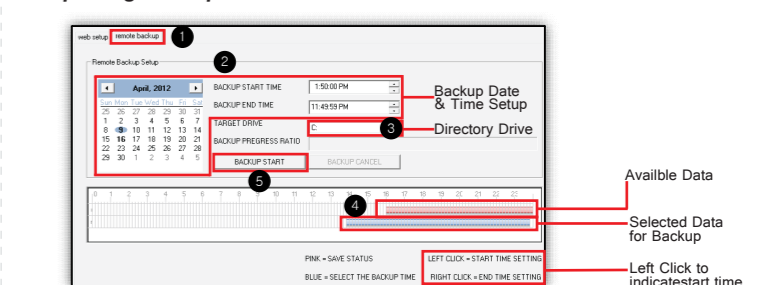

Overwrite SD Card when Full
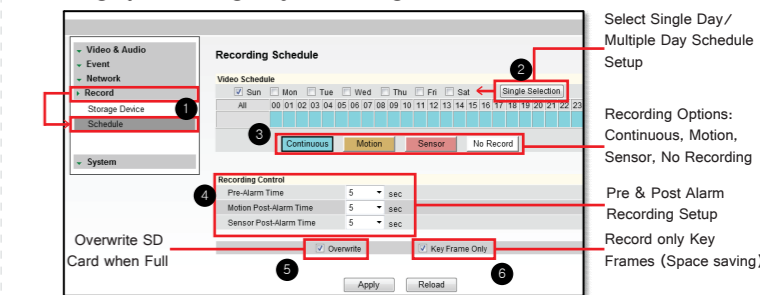
Select: Single Day / Multiple Day Schedule Setup

Recording Options: Continuous, Motion, Sensor, No Recording

Pre & Post Alarm Recording Setup

Record only Key Frames (Space saving)

Exporting Backup Data from the SD Card:

Backup Date & Time Setup

Directory Drive

Availble Data

Selected Data for Backup

Left Click to indicatestart time. Right Click to indicate end time.

SD card is for emergency recording during network loss.

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