DIGITAL WATCHDOG
Everything's Digital

MEGApix MPTZ20X
IP 2.1M Pan, Tilt, Zoom Camera

Quick Setup Guide

* Default Username and Password: admin/ admin

HD 1080 | Onvif | UPnP FORUM MEMBER

The following items are included with the MPTZ20X Camera

Quick Start Guide

Hexagonal Wrench

Water Proof Tape, Safety Wire, & Housing Safety Cable Hanger

CD (Manual & Software)

Mounting Template

4 Anchor Bolts

PTZ 20X IP Camera
- Ceiling Mount Bracket
- Wall Mount Bracket
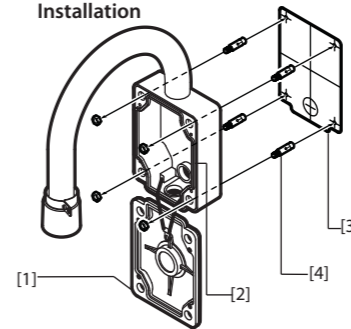
Wall Mount Type   Ceiling Mount Type

Thank you for purchasing Digital Watchdog's 20X MEGApix Pan Tilt Zoom Camera.
Before installing the camera, please verify your model and read this guide carefully.
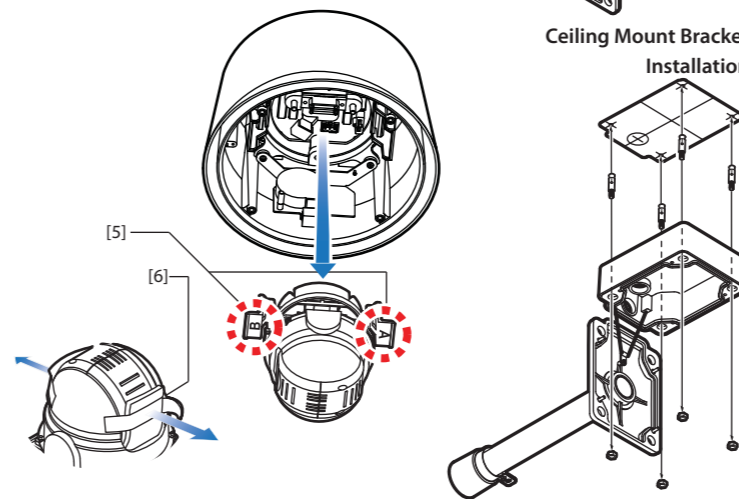
2

Prepare the Camera and Mounting Surface

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.
4. Drill four (4) holes for the bolts. Mount the Mounting box on the wall/ceiling.
5. Remove the PTZ mechanism from the upper housing by pressing down and holding both black handles on the camera mechanism. Pull them up to detach the camera.
6. Remove the tape used to fix the PTZ mechanism.
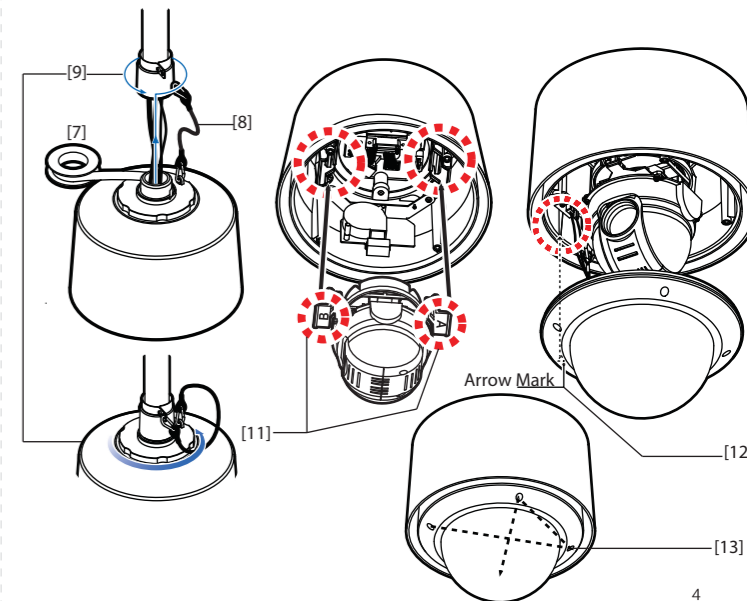
Wall Mount Bracket Installation

[1]   [2]   [3]   [4]

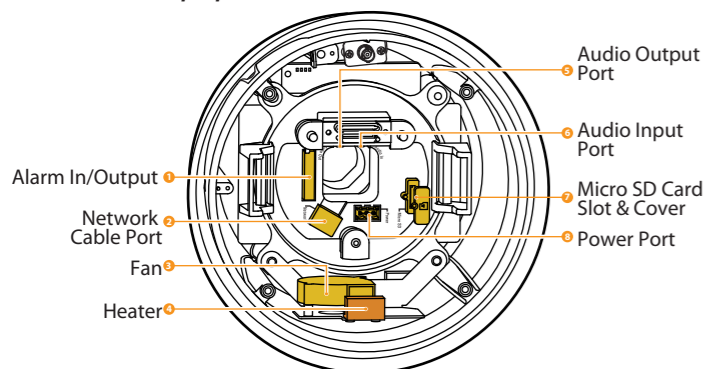**Ceiling Mount Bracket Installation**

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Cable Specifications

7. Use the water proof tape on the pipe of the upper housing.
8. Hook the safety cable between the mounting accessory and the upper housing.
9. Attach the upper housing to the mounting pole by rotating it clockwise until the upper housing and the mounting accessory are tightly connected.
10. Run all the necessary cables via the mounting accessory's bracket to the upper housing. Use the diagram in page 5 of this QSG for more information.
11. Press the PTZ mechanism into the upper housing. make sure the black handles marked 'A' and 'B' match the markings on the upper housing.To lock the PTZ mechanism to the upper housing, press the two black handles until the module makes a clicking sound.
12. Close the dome cover. Place the dome cover on the camera housing by matching the 'Arrow Mark'.
13. Tighten the four screws on the dome cover in sequence as shown in the picture.

[9]   [7]   [8]   [11]   Arrow Mark   [12]   [13]

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Mounting the Camera
The MPTZ20X MEGApix camera supports audio and relay connections. Use the diagram below for additional information on the specific cables and their purpose.
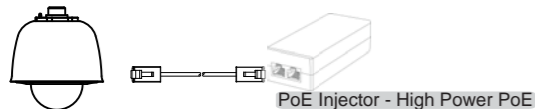
Audio Output Port
Audio Input Port
Micro SD Card Slot & Cover
Power Port
Alarm In/Output
Network Cable Port
Fan
Heater

Network Connection

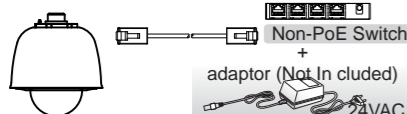*There are two options for powering the MPTZ20X MEGApix Camera*

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.
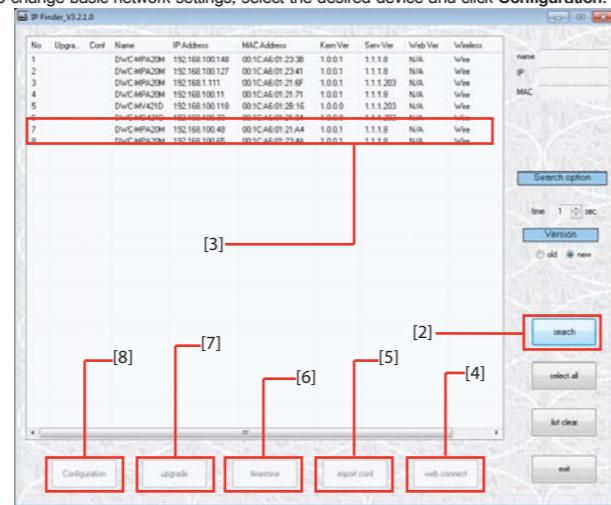
PoE Injector - High Power PoE

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.

Non-PoE Switch
+
adaptor (Not In cluded)
+
24VAC

Installing IP Finder

IP Finder searches for all the available network devices on your local area network.
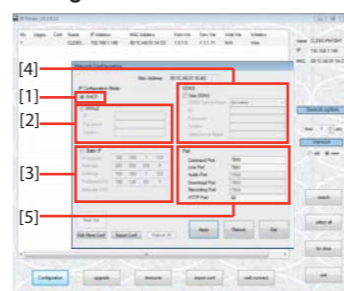
❶ Install [ ] IP Finder software included in the User Manual CD to find your MEGAPIX Camera on the local network.
❷ When setup is complete, launch the IP Finder software. Click Search button to find our cameras.
❸ Your MEGApix camera will appear as "DWC-MPTZ20X".
❹ To access the camera via the web browser, select the desired device and click **Web Connect**.
❺ To import camera settings from a different camera, press **import conf**.
❻ To adjust the camer's date & time, press the **timezone** button.
❼ Click **Upgrade** to keep the camera's firmware to the latest version*.
❽ To change basic network settings, select the desired device and click **Configuration**.

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* See pages 6 in this QSG for more information.

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Setting the Camera on IP Finder

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

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❶ 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.
❷ PPPoE: Select this option when you use WAN service or a PPPoE-based internet service. To use PPPoE, contact your Internet Service Provider for a User ID and Password.*
❸ Static IP: This option will assign a static (fixed) IP to your camera. A static IP address will prevent the network from canging 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. Contact your Internet Service Provider.
❹ 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.
❺ Port: This section displays all the port numbers that are required for remote communication.

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

- Micro SD
- Power
- Link
- Act
- Reset

Frequent use may cause a System Error

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Setting the Camera on IP Finder

Set the Camera for Internal Use

If you wish to connect your MEGApix Camera internally from the same network:
❶ Find your MEGApix Camera on IP Finder software and click **Configuration**.
❷ Select an IP Configuration Mode - **DHCP, PPPoE, or Static**. DHCP is Recommended.
❸ If you wish to **use DDNS**, select the Use DDNS option and enter a registered DDNS information.
❹ When the setup is complete, select **Apply**.
❺ Press the **Reboot** button. This process may take up to a minute.
❻ Select **Exit**.
❼ On the IP Finder, select Search and comfirm that your changes have been made.

Set the Camera for External Use

If you wish to connect your MEGApix Camera from an external network:
❶ Find your MEGApix Camera on IP Finder software and click **Configuration**.
❷ Select **Static** IP Configuration Mode and enter all the network information.
❸ If you wish to use DDNS, select the **Use DDNS** option and enter a registered DDNS information.
❹ When the setup is complete, select **Apply**.
❺ Then, select **Reboot** button. This process may take up to a minute.
❻ Select **Exit**.
❼ On the IP Finder, select Search and comfirm that your changes have been made.

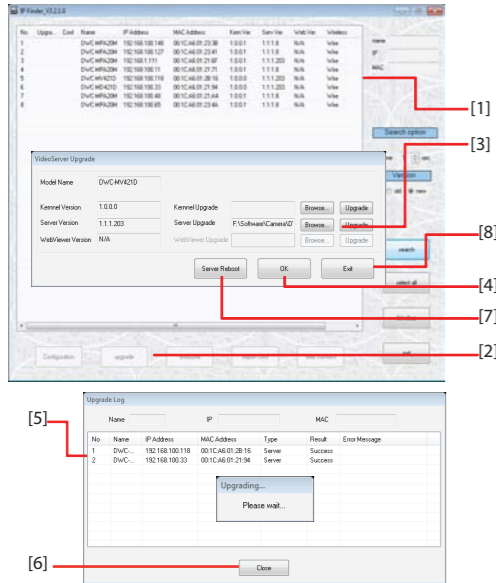## Webviewer Specifications

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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MEGAPIX CAMERA SETUP

Upgrading the Camera's Firmware
Use IP Finder to perform firmware upgrade to all your MEGApix cameras from one convenient location.
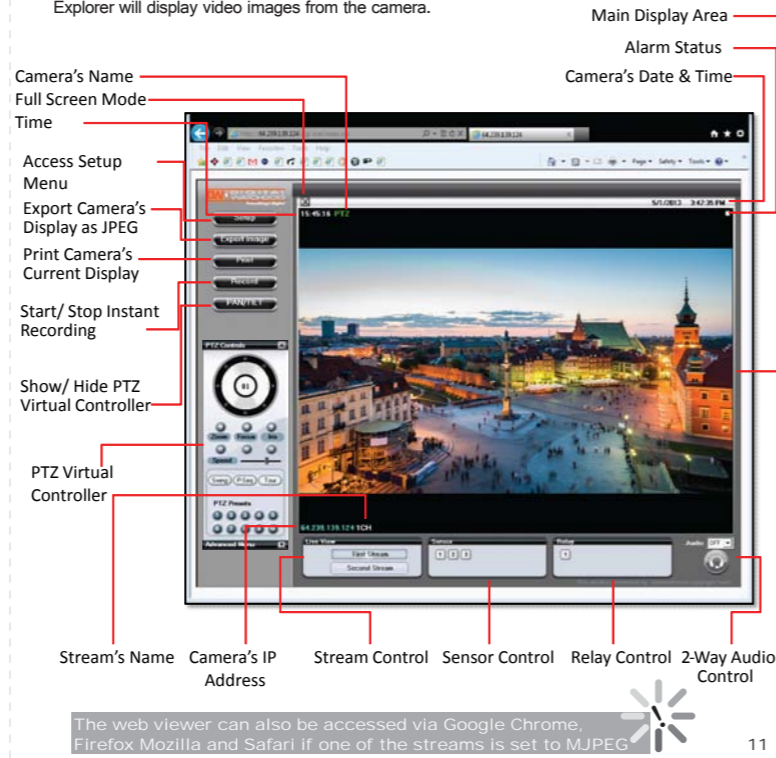
1. Select all the cameras you would like to upgrade. You can select multiple cameras by clicking on multiple camera models while holding down the Ctrl button.
2. Press the 'Upgrade' button.
3. Browse and select the appropriate file to use for the upgrade. Press the 'OK' button.
4. The system will start 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.

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Accessing the Camera
Monitor & configure the MEGApix camera through a built-in webviewer.

❶ Enter the IP address of the camera on the Internet Explorer window. Example: http://192.168.1.123 (Default)
❷ Enter Username and Password. (Default: Username: admin / Password: admin)
❸ The web browser will ask to install Active-X Control. Once it has been installed, Internet Explorer will display video images from the camera.
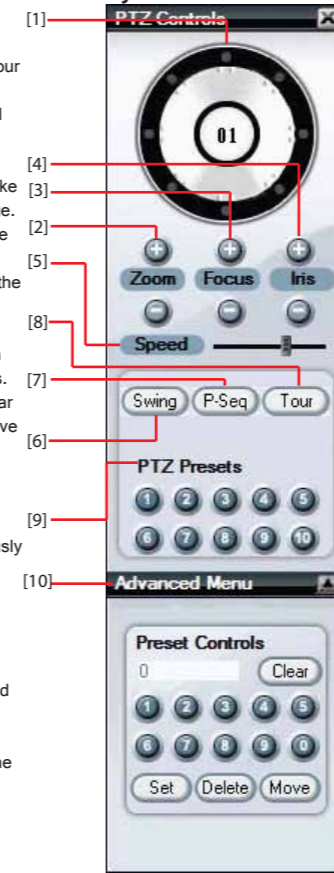
Main Display Area
Alarm Status
Camera's Date & Time

Camera's Name
Full Screen Mode Time
Access Setup Menu
Export Camera's Display as JPEG
Print Camera's Current Display
Start/ Stop Instant 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

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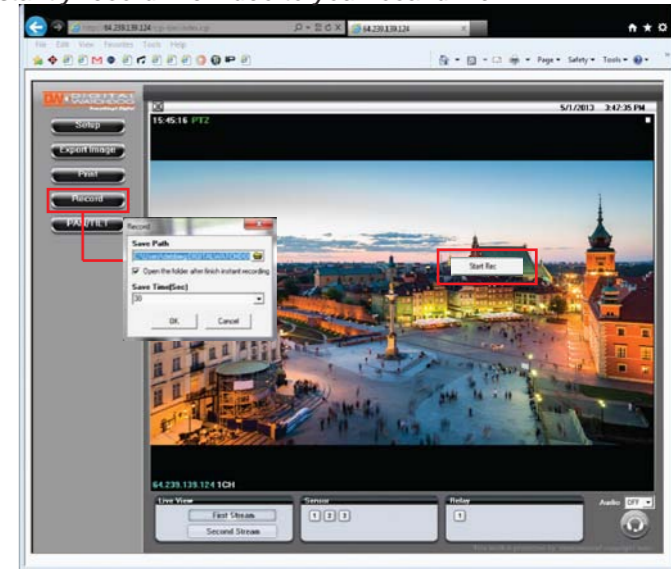
Accessing the Camera
Controlling the Camera Using the Virtual Joystick

1. Pan Tilt Wheel- Move the camera in eight (8) directions by clicking and holding with your mouse's left button on the corresponding button. Pressing the central upper button will move the camera UP. To stop the camera's movement, release the mouse' click.
2. Zoom Control Button- Press the '+' to 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- If 'Focus Mode' in the Camera's Setup Menu is 'Auto', the Focus cannot be changed manually.
4. Iris Control Button- The iris of the camera can be controlled by clicking '+' or '-' buttons.
5. Speed Control Button- 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.
6. Swing Button- Start and stop any of the previously set Swing commands.
7. P-Seq Button- Start and stop any previously set Preset Sequence commands.
8. Tour Button- Start and stop any of the previously set tour commands.
9. Presets buttons- Send the camera to a specific preset previously setup. To activate presets higher than 10, expand the Advanced Menu option and use the numeric buttons to select a preset.
10. Advanced Menu- Preset Controls-Use the Advanced Menu to delete, set and move presets from the camera's main display window.

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Instant Recording
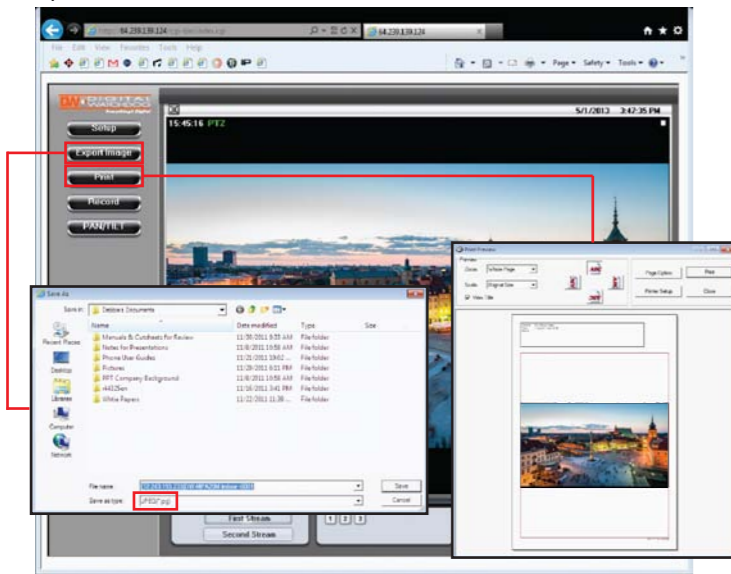*Instantly record live video to your local drive.*

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.

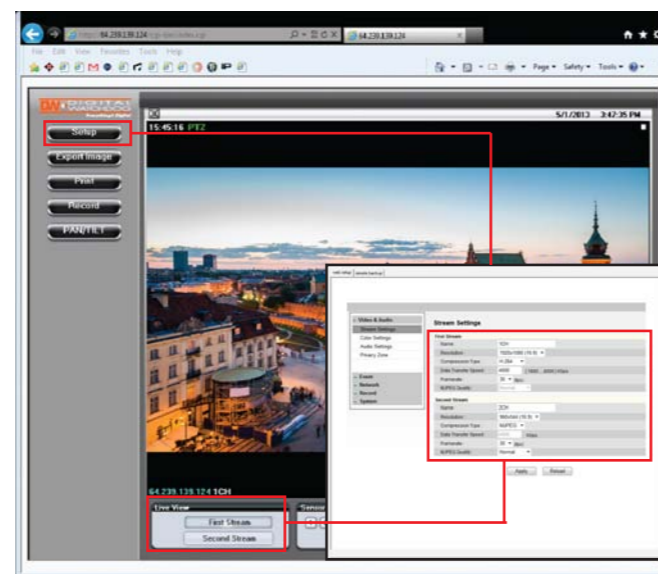### To Start and Stop Instant Recording
To Start, right-click anywhere on the display screen.
Select Start Rec. The icon on the top right of the screen will change to INSTANT.
To Stop, right-click anywhere on the display screen.
Select Stop Rec. The video will be displayed in the designated folder when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

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.
Select Print to print the page, or Close to cancel the print.
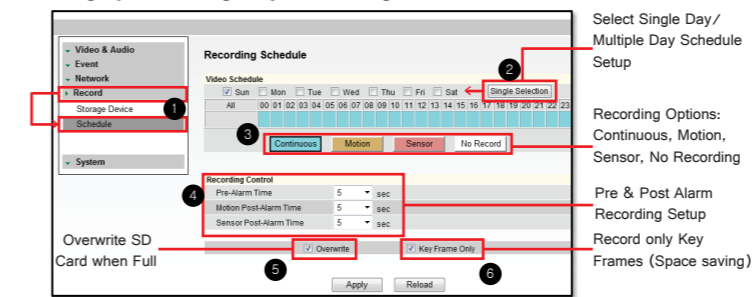
First Stream & Second Stream

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.
❶ 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.
❷ On the main monitoring page, user can view the camera with the First Stream settings or the Second Stream Settings.
❸ 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.
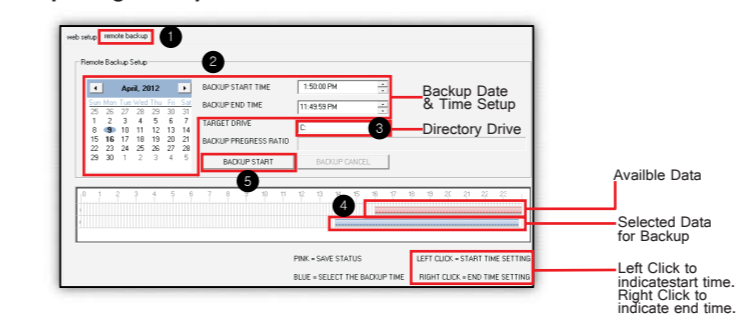
SD Card Installation & Setup
The MEGAPIX cameras offer local backup in case of network loss.

Setting up an Emergency Recording Schedule:

Select Single Day/ Multiple Day Schedule Setup
Recording Options: Continuous, Motion, Sensor, No Recording
Pre & Post Alarm Recording Setup
Overwrite SD Card when Full
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 Recording Loss emergency recording.

Camera Specifications

IMAGE	
Image Sensor	1/2.8" CMOS Sensor (7% Larger Than 1/3" CMOS Sensor)
Minimum Scene Illumination	F1.6 (50IRE): 1.7 Lux [Color] / F1.6 (50IRE): 0.3 Lux [B&W]
LENS	
Focal Length & Maximum Aperture Ratio	4.7~94mm, F1.6~F3.5
Digital Zoom / Optical Zoom	12X / 20X
Sensor In/ Out	3 In/ 1 Out
Audio	
Compression and Sampling Rate	G.711 (8KHz), 1 Line Input Output- Mono
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 Entires Per Group)
NETWORK	
Interface	Ethernet 10/100 Base-T (RJ-45)
Video Compression Type	H.264, MPEG4, MJPEG
Resolution & Framerate	1920X1080 , Up to 30fps at All Resolutions
Protocol	TCP/IP, HTTP, DHCP, UPNP, RTP, RTSP, DDNS, 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	NxMS, DW Spectrum
Memory Slot	24 hours recording to Micro SDHC Card (4GB-32GB)
	Card Not Included*
ENVIRONMENTAL	
Operating Temperature/ Humidity	-45°C ~ 50°C (-49°F ~ 122°F), Less than 90%
IP Rating	IP66 (Protects against dust and high pressure water)
Power Requirement	AC24V, PoE Injector (IEEE802.3af)
Power Consumption	Heater Off: 15W, 1,250mA
	Heater On: 55W, 4,583mA
MECHANICAL	
Dimensions	260 X 271.5 mm, 10.2 X 10.7 in

*Specification is subject to change without prior notice.