DIGITAL WATCHDOG
Everything's Digital

MEGAPIX

IP 2.1MP Snapit Indoor Dome Camera

MD421D/B
MD421TIR/B
Quick Setup Guide

HD 1080 · ONVIF · UPnP

PREPARATION

The following items are included with the MD421D/TIR camera

Quick Start Guide	CD (Manual & Software)
Second Video Jack	Mounting Template
Audio Cable	2 Screws 2 Dry Wall Anchors

① Camea Module
② Snapit Indoor Housing
③ 8P Terminal Block

Thank you for purchasing Digital Watchdog's Snapit MEAPIX Indoor Dome 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

① Remove the camera's protective bubble dome by holding and squeezing the plastic dome on both sides to lossen the hold on the camera module.

② While squeezing the plastic dome, hold the camera module and gently remove it from the bubble dome.

③ Use camera mounting template or your camera to mark the holes as required.

④ Drill holes into the drywall and insert the drywall mounts.

⑤ Pull wires through and make connections. Refer to "**Network Connection**" for further explanation.

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SPECIFICATIONS

Lens Specifications

Lenses are pre-focused at the factory. In the unlikely event that the optical effect of the dome cover cause a slight defoucing of the lens, hold the dome cover over the lens to make a final adjustment.

① Y-Axis: 90° Tilt for MPA2OM
75° Tilt for MPA2OMTIR

② X-Axis: 360° Pan

Rotation 360°   Panning 360°

Tilting 90° 90°   Tilting 75° 75°

Over-rotating the lens will damage the camera lens module

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Additional Cabling Connections

- Second Video Connector
- SD CARD Slot
- 8P Terminal Block
  - 8. : TXD232
  - 7. : RXD232
  - 6. : DOUT+
  - 5. : DOUT-
  - 4. : GND
  - 3. : DIN+
  - 2. : GND
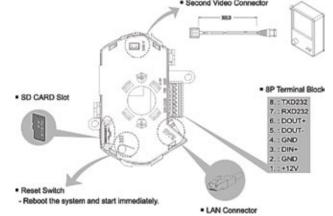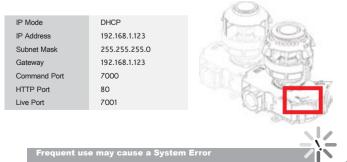 - 1. : +12V
- Reset Switch
  - Reboot the system and start immediately.
- LAN Connector

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

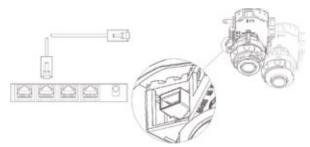**Frequent use may cause a System Error**

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Network Connection
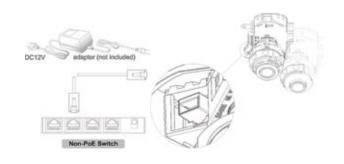
There are two options.*

① **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.

② **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
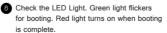
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Mount the Camera

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

⑥ Mount the camera to the wall or ceiling using the screws provided with the camera.

⑦ Adjust the camera's pan and tilt.

⑧ Check the LED Light. Green light flickers for booting. Red light turns on when booting is complete.

⑨ Snap the Cover Dome back over the camera to complerte the installation.

⑩ To snap the cover back into place, align the small indentation in the cover dome with the RJ45 connector in the camera module as seen in the image.
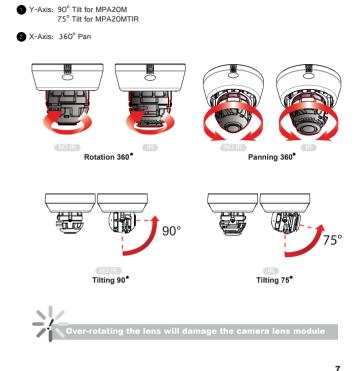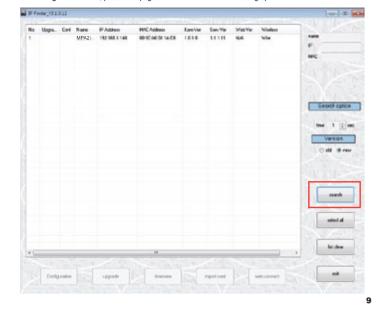
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Camera Specifications

IMAGE	
Image Sensor	1/2.8" CMOS Sensor (7% Larger Than 1/3" CMOS Sensor)
Total Pixels	2016 (H) X 1108 (V)
Minimum Scene Illumination	F1.6 (30IRE): 0.5 Lux [Color]
	F1.6 (30IRE): 0.0 Lux [B&W]
LENS	
Focal Length	3.5-16mm
Lens Type	Auto Focus
IR Distance	70ft Range
Digital Zoom / Optical Zoom	8X / 4.5X
OPERATIONAL	
Mirror & Flip	Off, On
3D-Digital Noise Reduction	Off, Low, Middle, High
Privacy Zone	Off, On (30 Programmable Zones)
Motion Detection: Sensitivity	Low, Middle, High
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	20 Users
ONVIF Conformance	Yes
Web Viewer	OS: Windows XP / Vista / 7, MAC OS
	Browser: Internet Explorer, Chrome, Firefox, Safari
Video Management Software	NxMS, Pivot
Memory Slot	Up to 24 Hour to Micro SDHC Card (4GB-32GB) Card(Not Included*
ENVIRONMENTAL	
Operating Temperature/ Humidity	-10°C ~ 55C (14°F ~ 131°F)
Operating Humidity	Less than 90% (Non-Condensing)
Storage Temperature	-20°C ~ 70C (-4°F ~ 158°F)
Other Certifications	CE, FCC, RoHS
ELECTRICAL	
Power Requirement	DC 12V, PoE (IEEE802.3af Class 2)
Power Consumption	5.16W, 430mA / LED ON 9.96W, 830mA
MECHANICAL	
Material	Plastic
Dimensions	108 X 96.8 mm (4.25 X 3.8 in)
Weight	0.52lbs

*Specification is subject to change without prior notice.

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TEL: (866) 446-4359
www.Digital-Watchdog.com / technicalsupport@dwcc.tv
Technical Support Hours: Monday-Friday 8:30AM to 8:00PM EST
12132012

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-MD421D" or "DWC-MV421TIR."
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

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.
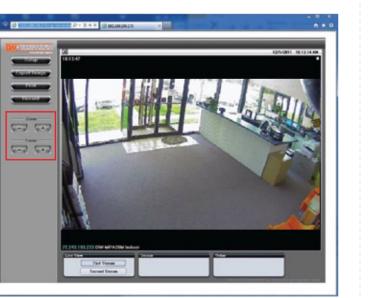
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Accessing the Camera

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
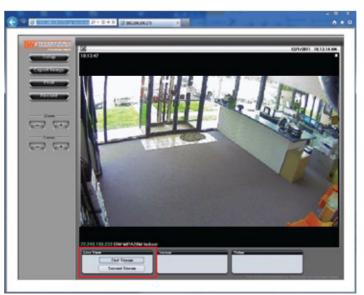
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Instant Recording

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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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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Auto Zoom & Focus

Use the Snapit MEGAPIX camera's remote web viewer to adjust the camera's zoom and focus automatically. Once the configuration is complete, the camera will automatically adjust its focus, zoom, light exposure and lens to match your settings.

1. ZOOM: Using the + and - buttons, adjust the camera's optical zoom.
2. FOCUS: Using the + and - buttons, adjust the camera's focus.

After setup, please allow the camera up to 30 seconds to complete readjusting itself to the new settings.
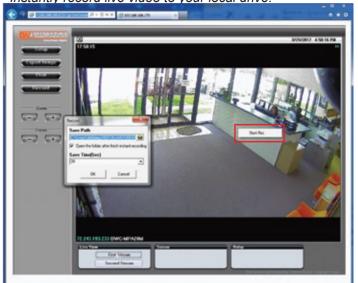
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First Stream & Second Stream

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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SD Card Installation & Setup

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

1. Locate the SD card slot in the back of the camera module.
2. Insert the SD card in the slot and push it down, until you hear a 'click' sound.
3. To remove SD card, press the SD card down until you hear a 'click'. The SD card will eject from the slot.

Emergency Backup Configuration

4. Go to Storage Device Configuration to view your SD card's information, Start/ Stop recording, and eject the SD card safely.
5. Go to Storage Schedule to setup a recording schedule for your SD card.

SD card is for Recording Loss emergency recording.

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