

# OUTDOOR IR NETWORK CAMERA SERIES

**Installation Guide** 

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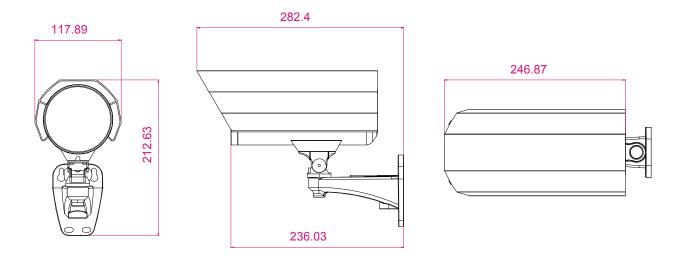
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## 1. OVERVIEW

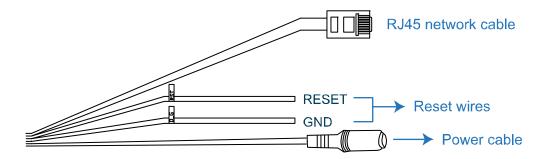
## 1.1 Package Content

☐ Network camera	☐ Installation Sticker	
☐ Installation Guide	☐ RJ45 cable extender adapter	
☐ CD-ROM disc (including user manuals & CMS software "Video Viewer")		

## 1.2 Dimensions



## 1.3 Cable Overview

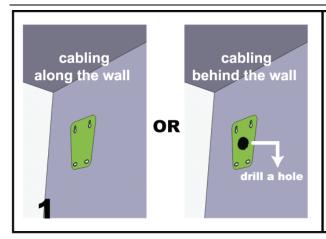


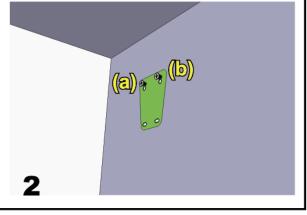
CABLE	DESCRIPTION
RJ45 network cable	Connect it to the supplied RJ45 cable extender adapter for cable extension, and prepare another RJ45 network cable with suitable length for your connection.
Reset wires	Remove the insulating coating of these two wires, and twist them together to reset default. This will reset all parameters, including the IP address to factory default settings.
	<b>Note:</b> Disconnect power before twisting these two wires together, and connect to power again for reset default.
Power cable	Connect to DC12V power supply.

## 2. INSTALLATION & CONNECTION

#### 2.1 Install the Camera

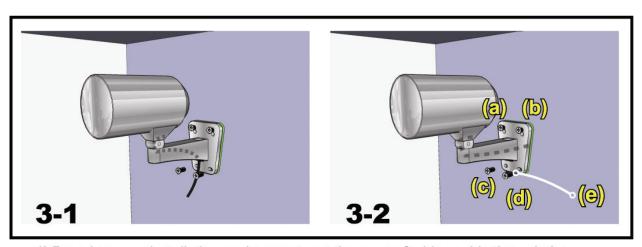
**Note:** The illustration below is for installation only, and the actual product may look different from the illustration below.



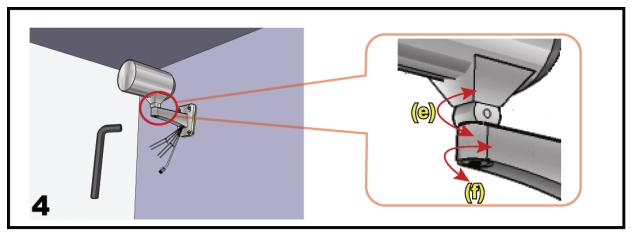


Paste the supplied installation sticker to the location where your camera will be installed. Based on your installation environment, drill a hole in the middle of the sticker for the power & video cable to put through later if necessary.

Slightly fasten the screws to (a) & (b) as indicated, and make sure the screws are not fastened to the end.



- 1) Based on your installation environment, put the power & video cable through the bracket, and determine the cabling of your camera:
  - 3-1 -- The cable is hidden on the other side of the wall.
  - 3-2 -- The cable walks along the wall.
- 2) Hook the bracket with the camera to the screws fastened in step 2, and push it down to fix the bracket.
- 3) Secure the screws on (a) & (b), and fasten the other two screws to (c) and (d) to fix the bracket.

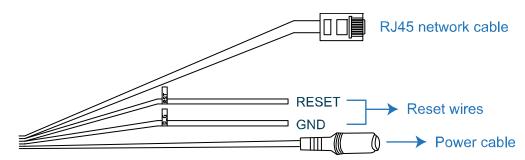


Adjust the angles of the camera:

- (e) -- Adjust the vertical angle of the camera, and fix it with the screw & wrench supplied with the bracket.
- (f) -- Loosen the screw a little bit on the camera joint with the supplied wrench to adjust the horizontal angle of the camera, and fix it.

## 2.2 Connect to power

Connect the power adapter (optional) to the camera's power connector and power outlet.



**Note:** The regulated power adapter is DC12V to operate this device.

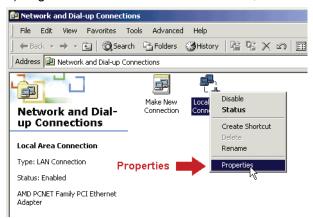
## 3. ETHERNET CONNECTION

Before using this network camera, please follow the instructions below to finish the network connection settings based on your installation environment:

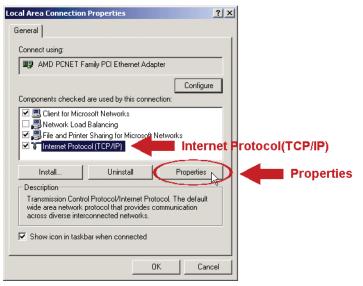
- To configure the network settings, you must connect the camera to your PC by LAN. For details, please refer to "3.1 Network Connection via LAN" at page 4.
- To configure the network settings via the setting wizard, please refer to "3.2 Network Configurations via Wizard" at page 8.
- To configure the network settings via a web browser, please refer to "3.3 Network Configurations via Web Browser" at page 12.

#### 3.1 Network Connection via LAN

- Step1: Connect this network camera and your PC via a RJ45 network cable, and make sure the camera is powered on.
- Step2: Set the PC's IP address as "192.168.1.XXX" (1~255, except 10). <u>For Windows 2000 users:</u>
  - a) Select "Start" → "Settings" → "Network and Dial-up Connections".
  - b) Right-click on "Local Area Connection", and select "Properties".

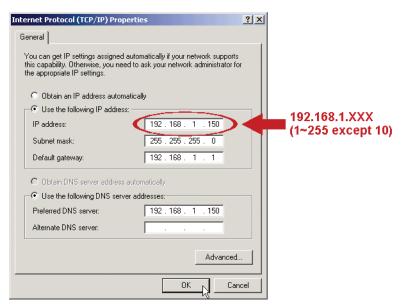


c) In the "General" tab, select "Internet Protocol (TCP/IP)", and select "Properties".



d) In the "General" tab, select "Use the following IP address", and set the IP address as described below.

**Note:** It's recommended to note down the current settings first and then change as instructed. It's helpful when you need to restore the PC network settings for connecting to Internet later.



e) Click "OK" to close the "Internet Protocol (TCP/IP) Properties" dialog box. Then, click "Close" to close the "Local Area Connection Properties" dialog box.

#### For Windows XP users:

a) Select "start" → "Control Panel" → "Network and Internet Connections" → "Network Connections" (If you're in "Category View").



b) In "LAN or High-Speed Internet", right-click on "Local Area Connection", and select "Properties".



- c) In the "General" tab, select "Internet Protocol (TCP/IP)", and select "Properties".
- d) In the "General" tab, select "Use the following IP address", and set the IP address to "192.168.1.XXX" (XXX can be any value from 1~255 except 10).

**Note:** It's recommended to note down the current settings first and then change as instructed. It's helpful when you need to restore the PC network settings for connecting to Internet later.

e) Click "OK" to close the "Internet Protocol (TCP/IP) Properties" dialog box. Then, click "Close" to close the "Local Area Connection Properties" dialog box.

#### For Windows Vista users:

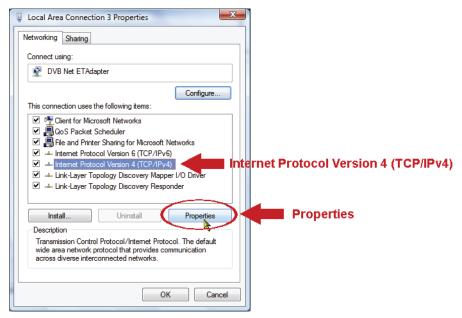
a) Select "♥" (start) → "Control Panel" → "Network and Internet" to enter the "Network and Sharing Center". Then, click "Manage network connections" (If you're in "Category View").



b) Right-click on "Local Area Connection", and select "Properties".

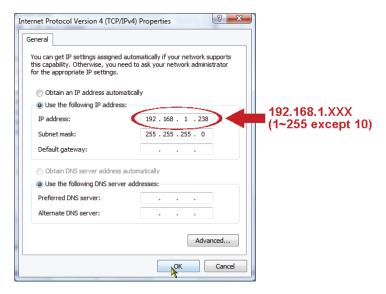


c) In the "Networking" tab, select "Internet Protocol Version 4 (TCP/IPv4)", and select "Properties".



d) In the "General" tab, select "Use the following IP address", and set the IP address as described below.

**Note:** It's recommended to note down the current settings first and then change as instructed. It's helpful when you need to restore the PC network settings for connecting to Internet later.



e) Click "OK" to close the "Internet Protocol Version 4 (TCP/IPv4) Properties" dialog box. Then, click "Close" to close the "Local Area Connection Properties" dialog box.

## 3.2 Network Configurations via Wizard

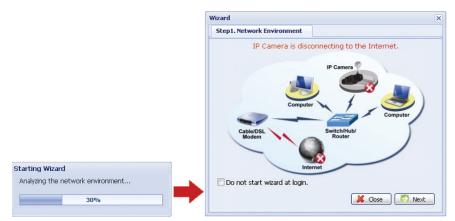
For selected models only, a quick installation wizard is available via your web browser for password change, date & time settings, and network configurations.

- For details about the wizard, please refer to "3.2.1 Setting in Wizard" at page 8.
- For details about DDNS setting for PPPoE and DHCP, please refer to "3.2.2 DDNS Setting" at page 10.

**Note:** You can also change the settings in the system configuration page via your web browser later. For details, please refer to "3.3 Network Configurations via Web Browser" at 12.

#### 3.2.1 Setting in Wizard

- Step1: Open your web browser, for example, Microsoft Internet Explorer, and enter "http://192.168.1.10" in the URL address box.
- Step2: In the login page, key in the default user name (*admin*) and password (*admin*), and enter the security code from the image below if any. Then, click "LOGIN".
- Step3: The wizard is then starting analyzing your network environment, and shows your network environment. Select "Next" to continue.

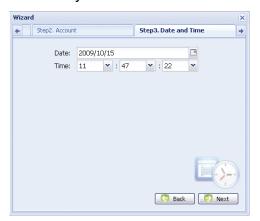


Step4: In "Account", change the access password if needed.

If not, leave all the columns blank, and select "Next".

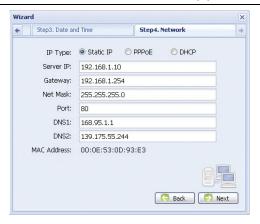


Step5: In "Date and Time", check if the date and time setting are correct and modify if necessary.



Step6: In "Network", select the network type based on your network environment (Static IP / PPPoE / DHCP), and key in the information needed.

Note: This camera doesn't support POE router or hub.



#### For Static IP:

- a) Enter the information of "Server IP", "Gateway" and "Net Mask" obtained from your ISP (Internet Service Provider).
- b) Enter the port number. The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

#### For PPPOE:

- a) Enter the user name and password obtained from your ISP.
- b) Continue the DDNS setting as instructed in "3.2.2 DDNS Setting" when you're prompted to restart the web browser in Step8.

#### For DHCP:

- a) Before selecting this option, you need to finish the DHCP router settings first.
   Get a router and connect it to the Internet via your PC (with Static IP or PPPoE setting). There are different setting methods for different routers. Please refer to their respective user manuals.
- b) Continue the DDNS setting as instructed in "3.2.2 DDNS Setting" when you're prompted to restart the web browser in Step8.

Step7: In "Apply", all the changes are listed. Check if the changes are correct.

- · If yes, click "Save".
- If no, click "Back" to where the changes should be made for modification, and click "Save" to apply the settings.

**Note:** You can also change the settings in the system configuration page via your web browser later. For details, please refer to "5. ACCESSING THE CAMERA VIA WEB BROWSER" in the user manual.

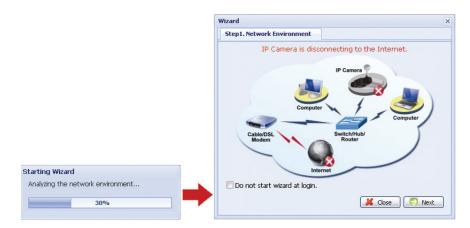


Step8: You will be prompted to restart your web browser for network setting changes.

- For PPPoE and DHCP, continue as instructed in "3.2.2 DDNS Setting".
- For Static IP, disconnect your camera and your PC, and connect them to Internet separately.
   Next, enter the IP address of the camera in the URL address box of the web browser, and see if you can access the camera successfully.

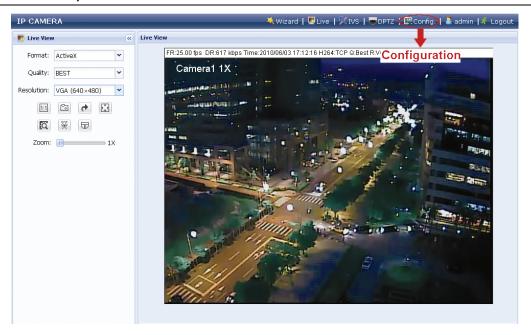
#### 3.2.2 DDNS Setting

Step1: Re-log in the network camera, and select "Close" for network environment checking.



Step2: In the live page, click "Config." or "Configuration" to open the configuration page.

**Note:** Different camera models might have different live view and configuration pages. The figures below are just examples and may look different from the ones in your hand.



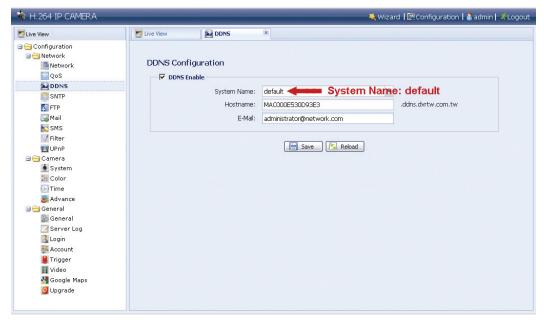
Step3: Click "Network" → "DDNS", and check "DDNS Enable".

Step4: Select "default", or the host name you applied for a DDNS service in "System Name" (ex. dyndns).

#### When "default" is available to choose

In "Hostname", keep the default value, i.e. *the MAC address of this camera*, or change the name to a meaningful one. It's easier to memorize.

Then, note down the whole address of the camera, for example, *MAC000E530D93E3.ddns.dvrtw.com.tw*.

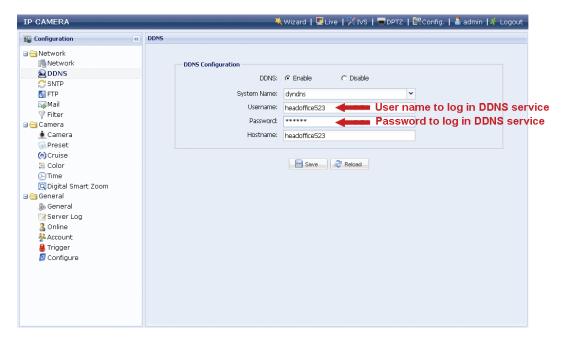


**Note:** You need to create a DDNS account from a website which provides free DDNS service. For details, please refer to "APPENDIX 1 CREATING AN ACCOUNT FOR DDNS SERVICE" at page 15.

Select the system name you set when subscribing the DDNS service from the drop-down list, for example, dyndns.

Enter the user name & password you used to log into the DDNS service.

Then, enter the host name you set when subscribing the DDNS service, for example, headoffice523.



Step5: Click "Save" and log out. Then, disconnect your camera and your PC, and connect them to Internet separately.

Step6: Enter the host name you just note down in the URL address box of the web browser, and see if you can access the camera successfully.

## 3.3 Network Configurations via Web Browser

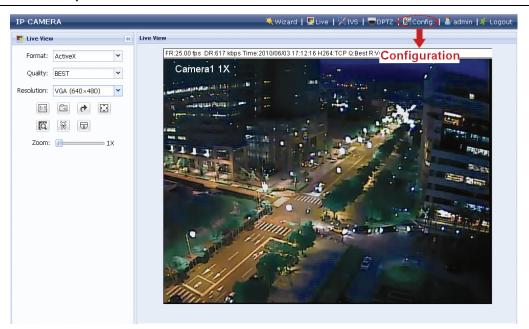
Step1: Open your web browser, for example, Microsoft Internet Explorer, and enter "http://192.168.1.10" in the URL address box.

Step2: In the login page, key in the default user name (*admin*) and password (*admin*), and enter the security code from the image below if any. Then, click "LOGIN".

**Note:** Skip the wizard if any.

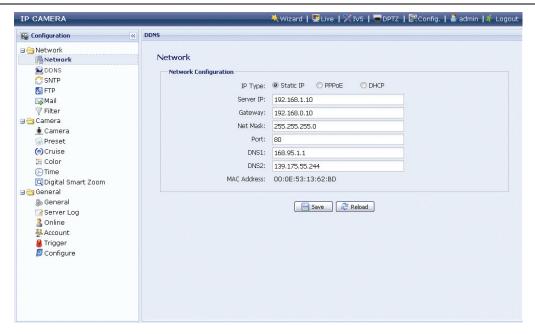
Step3: In the live page, click "Config." or "Configuration" to open the configuration page.

**Note:** Different camera models might have different live view and configuration pages. The figures below are just examples and may look different from the ones in your hand.



Step4: Click "Network" → "Network" to select the connection type: Static IP / PPPoE / DHCP.

**Note:** This camera doesn't support POE router or hub.



#### For Static IP:

- a) Enter the information of "Server IP", "Gateway" and "Net Mask" obtained from your ISP (Internet Service Provider).
- b) Enter the port number. The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.
- c) Click "Save" to save your network configurations, and logout.
- d) Disconnect your camera and your PC, and connect them to Internet separately. Then, enter the IP address or host name you just note down in the URL address box of the web browser, and see if you can access the camera successfully.

#### For PPPOE:

- a) Enter the user name and password obtained from your ISP, and click "Save".
- b) Continue the DDNS setting as instructed in "3.2.2 DDNS Setting".

#### For DHCP:

- a) Before selecting this option, you need to finish the DHCP router settings first.

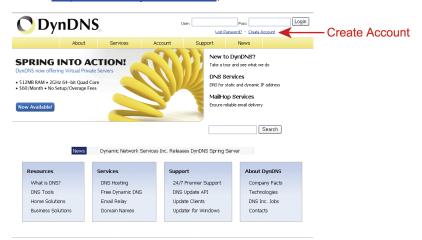
  Get a router and connect it to the Internet via your PC (with Static IP or PPPoE setting). There are different setting methods for different routers. Please refer to their respective user manuals.
- b) Continue the DDNS setting as instructed in "3.2.2 DDNS Setting".

### **APPENDIX 1 CREATING AN ACCOUNT FOR DDNS SERVICE**

For PPPOE or DHCP, you should enter the host name which points to the IP address of your network camera for login first. Besides using the default DDNS service, you can also apply for new DNS services.

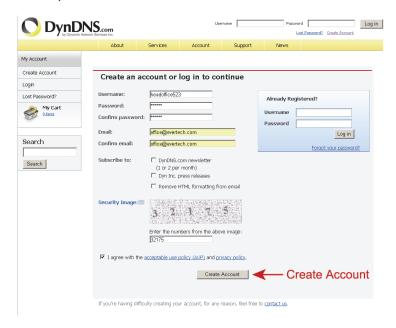
There are many websites for free DDNS service application, and below shows an example of DDNS account application from the website <a href="http://www.dyndns.com">http://www.dyndns.com</a>.

Step1: Go to http://www.dyndns.com, and click "Create Account" to sign up a DDNS account.



- Step2: Enter all the information necessary for signing up an account according to the website instructions.
  - Key in a user name for login, for example, headoffice523.
  - Set the password and input it again to confirm.
  - Key in your E-mail address and input it again to confirm.

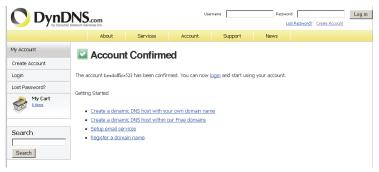
Then, click "Create Account".



Step3: The system will automatically send a confirmation email to your email account.

Please read this email within 48 hours and complete the procedure to activate your account according to the instructions in the email.

When the account is confirmed, you will see "Account Confirmed". Your account is created successfully now.



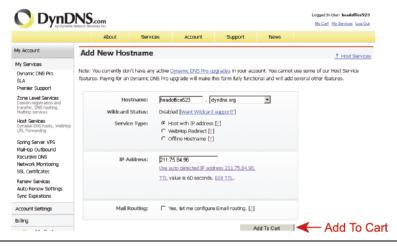
Step4: Click "login", and enter the user name and password you preset before to log in.

Step5: Click "Add Host Services".



- · Input a meaningful host name.
- · Choose a host system name.
- Enter the IP address you want to redirect.

Note down the whole host name, for example, *headoffice523.dyndns.org*. Then, click "Add To Cart" for billing.



**Note:** This service is free. Just finish the billing process, and **NO** paying information is required.

Step6: Click "Activate Services" after checkout, and you're ready to use DDNS services now.



Step7: Return to your web browser, and go to "Network" → "DDNS". Follow the description in "3.2.2 DDNS Setting" at page 10.

## **APPENDIX 2 IVS CONFIGURATIONS**

IVS related functions are grouped into two categories, and they are not allowed to be activated at the same time:

- Intelligent Video System (Flow Counting / Virtual Fence / One Way Pass)
- Face Tracking

**Note:** This function is available only for Megapixel models.

Note: This function is not available when the stream format is selected as MJPEG.

## A2.1 Intelligent Video System

**Note:** When this function is enabled, DPTZ, Face Tracking, Smart Zoom, and optical zoom are not allowed to use.

Intelligent Video System allows you to choose from Flow Counting, Virtual Fence or One-Way Pass based on your installation environment.



Step1: Click "IVS" to enter the IVS system configuration page, and select "Intelligent Video System".

Step 2: Select and set the IVS system as described below:

ITEM	DESCRIPTION	
Enable	Select "ON" to enable or "OFF" to disable the selected function in "Tracking Mode".	
Tracking Mode	Select "Flow Counting", "Virtual Fence" or "One Way Pass" from the drop-down list.	
Reverse	Draw a detection line directly on the live view preview area above "Reverse", and click it to decide the detection orientation based on your selection in "Tracking Mode".	
	■ For Flow Counting:	
	IN: People coming from the opposite direction to the arrow mark.  OUT: People coming from the same direction as the arrow mark.	
	■ For Virtual Fence: An event happens for anyone walking across the detection line.	
	For One Way Pass: An event happens for anyone walking from the opposite direction to the arrow mark.	
Sensitivity	Set the sensitivity for IVS from 00 $\sim$ 15. The larger the value, the more sensitive the IVS will be.	
Line Display	Select to display (ON) or hide "OFF) the detection line for IVS on the live view or not.	
Reset Count	Reset the flow counting number to 0 when the tracking mode is set to "FLOW COUNTING" and activated.	

Step 3: When all the configurations are done, click "Save" to save your changes, and click "Live" on the top to return to the live view.

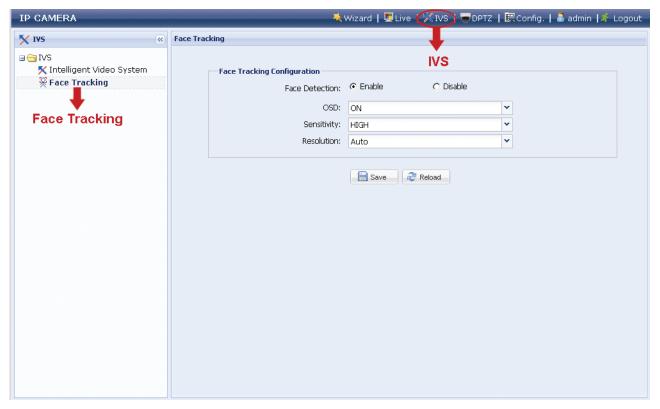
When "Flow Counting" is selected and enabled, you will see the flow-counting panel as shown below on the left panel of the live view.



## **A2.2 Face Tracking**

**Note:** When this function is enabled, DPTZ, Intelligent Video System, Smart Zoom, and optical zoom are not allowed to use.

Face Tracking is used to especially zoom in on the intruder's face, easy for everyone to identify.



Step 1: Click "IVS" to enter the IVS system configuration page, and select "Face Tracking".

Step 2: Select and set Face Tracking as described below:

ITEM	DESCRIPTION	
Face Detection	Select "Enable" to activate or "Disable" to deactivate this function.	
OSD	Select "ON" to display the following status messages on the live view:	
	FACE STANDBY:	This function is activated and ready to use.
	FACE TRACKING:	This function is tracking.
	FACE ZOOM IN / OUT:	This function is zooming on the face for tracking / zooming out when the tracking object leaves the surveillance area.
Sensitivity	Set the tracking sensitivity from HIGH / MEDIUM / LOW.	
Resolution	Set the resolution for fa	ace tracking from Auto / VGA / QVGA.

Step 3: When all the configurations are done, click "Save" to save your changes, and click "Live" on the top to return to the live view.

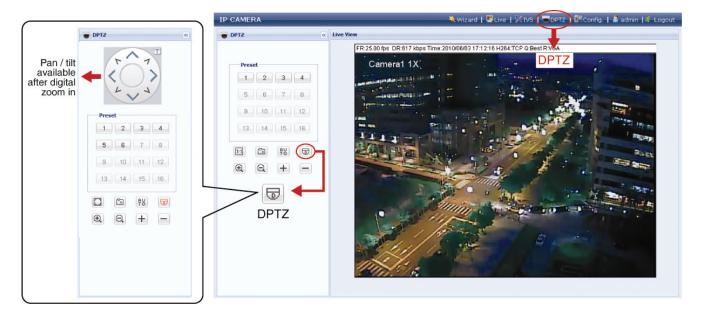
## **APPENDIX 3 DIGITAL PTZ (DPTZ) OPERATIONS**

This fixed network camera type has PTZ capability, i.e. digital PTZ (hereafter called "DPTZ"), for wide area monitoring.

**Note:** This function is available only for Megapixel models.

**Note:** When this function is enabled, Intelligent Video System, DPTZ, Face Tracking, Smart Zoom, and optical zoom are not allowed to use.

Step 1: Click "DPTZ" to show the DPTZ control panel.



Step 2: Select the functions when needed:

ICON	FUNCTION	DESCRIPTION
Fit to screen / Restore to original size		There are several monitor resolutions available. When the selected resolution is out of your current live view support, a part of your surveillance area might get covered on the screen, and you need to manually move on the screen to check the covered part.
	This is used to scale the selected resolution to fit in the current live view size.	
		This is used to restore the scaled live view resolution to its original size.
	Take snapshots	Click to take a snapshot of the current view, and save to the location specified in "Config." → "Camera" → "Camera" → "Snapshot Path".
Enable Auto mode		Click to activate the auto mode of the camera. The auto mode could be "Sequence" or "Auto Pan" specified in "Config." → "Camera" → "Cruise" → "Active Mode".
	<b>Note:</b> This function is available only when DPTZ is enabled.	
	Enable Auto mode	Sequence: Move to several preset points accordingly and regularly specified in "Config." → "Camera" → "Cruise" → "Active Mode" → "Sequence".
		<b>Note:</b> Preset points are set in "Config." → "Camera" → "Preset".
		Auto Pan: Pan automatically and horizontally.

ICON	FUNCTION	DESCRIPTION
•	Enable DPTZ	Click to activate the digital PTZ function. When this function is enabled, the following operations are available:  Auto mode  Move up / down / left / right after digital zoom-in.
<b>1</b>	Optical zoom in / out*	Click to zoom in / out the image optically.
+ /	Optical max. zoom in / out*	Click to zoom in the image to the largest / zoom out the image to its original size optically.

<sup>\*</sup> Available for Megapixel AC type camera models only