User's Guide

TRENDnet®

Outdoor 1.3 MP HD WiFi IR Network Camera

TV-IP322WI

Contents

Contents i

Product Overview 3

Package Contents 3

Features 3

Product Hardware Features 4

Warnings: 5

Cautions: 5

Plan for Installation 5

Setup Camera with CD 6

Access Camera through the Web Browser 8

Logging-in to the Camera for the First Time (Windows) 8

Logging-in to the Camera for the First Time (OS X) 11

Basic Settings 15

Live View 15

Playback 16

Log 19

System 19

Advanced Settings 20

System 20

Device Settings 20

User Accounts 20

Time Settings 21

Daylight Savings 22

Live View Settings 22

Maintenance 23

Network 24

TCP/IP 24

Port 25

DDNS 26

PPPoE (ADSL) 26

SNMP 27

802.1X 28

IP Address Filter 29

QoS (Quality of Service) 30

UPnP 30

Wi-Fi 31

Video 32

Video Format 32

Display Settings 33

On Screen Display (OSD) Settings 35

Text Overlay 36

Privacy Mask 36

Video Recording 37

Event 38

Motion Detection 38

Exception 41

Snapshot 42

Email 43

Storage 44

Storage Management 44

SD Card Slot 44

Network Storage 44

FTP Server 45

© Copyright 2015 TRENDnet. All Rights Reserved.

Troubleshooting 47

Limited Warranty 52

© Copyright 2015 TRENDnet. All Rights Reserved.

Product Overview

TV-IP322WI

Package Contents

- TV-IP322Wi
- Quick Installation Guide
- CD-ROM (Utility, Software & User's guide)
- Camera Mounting hardware (Drill template, mounting screws, network cable waterproof cap)
- Network cable (6 ft / 2M)
- Power Adapter (12V 1A)

Features

TRENDnet's Outdoor 1.3 MP HD WiFi IR Network Camera, model TV-IP322WI, provides powerful 1.3 megapixel night vision (higher than 720p) in complete darkness for up to 30 meters (100 ft.). This ultra-compact camera is outdoor ready with an IP66 weather rated housing, embedded WiFi N, and a MicroSD card slot. It comes with a free iOS and Android™ mobile app and complimentary pro-grade software to manage up to 32 TRENDnet cameras.

.

1.3 Megapixel

Record up to 1280 x 960 pixel video (higher than 720p) at 30 fps in H.264 compression

Night Vision

Night vision up to 30 meters (100 ft.) in complete darkness

Adjustable Bracket

Adjustable integrated mounting bracket provides installation flexibility

WiFi N

Network the camera to an existing Wireless N (2.4 GHz) network

PoE

Supports a Power over Ethernet (IEEE 802.3af) network connection for an optional PoE installation

Outdoor Ready

Outdoor IP66 weather rated and an operating temperature range of -30 – 60 °C (-22 – 140 °F)

Storage

Store video to a MicroSD (SDHC, SDXC) card up to 64 GB (sold separately) or set up SMB or FTP Server storage

© Copyright 2017 TRENDnet. All Rights Reserved.

Smart IR
Dynamic IR adjustment optimizes night visibility

D-WDR
Digital Wide Dynamic Range improves video quality in high contrast lighting environments

Advanced Playback
Advanced in-camera archived video review functionality

Motion Detection
Create motion detection windows with separate sensitivity settings and event triggers

Recording Schedule
Define a weekly recording schedule with a mixture of continuous and motion detection recording

IPv6
IPv6 support

ONVIF
ONVIF Profile S compliant

Free Apps
See live video on a mobile device with free iOS and Android® apps

Complimentary Software
Complimentary pro-grade software to manage up to 32 TRENDnet cameras

Product Hardware Features

Camera Overview

- **Power Connector:** This model is designed to work on wireless or PoE. For wireless PoE user, please connects the power adapter to camera.
- **Ethernet/PoE Port**: Plug the network cable to connect to supply power to the camera if using PoE connection.
- **Mounting Lock Ring:** Loosen the lock ring to adjust and tighten the camera position.
- **IP66 Housing:** Housing is rated with IP66.
- **IR Sensor:** Detect the light source.
- **IR LEDs:** The IR LEDs will be on when the sensor detect low light source.
- **Sun Visor:** Sun visor to prevent direct sun to the camera.

© Copyright 2017 TRENDnet. All Rights Reserved.

Warnings:

- For PoE user, it is recommended to use the PoE injector or an IEEE 802.3af compliant PoE switch.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. Disassembling the product will void the warranty and may cause harm or injury.
- The installation should be done by a qualified service person and should conform to all construction and electric regulations and other local codes.

Cautions:

- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as the Sun or an incandescent lamp. Strong light can damage the camera sensor.
- The sensor may be burned out by a laser beam. When any laser equipment is being used, make sure that the surface of the sensor will not be exposed to the laser beam.
- Do not place the camera in extremely hot, cold temperatures (the operating temperature should be between -30°C to 65°C), dusty or damp environment, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- While shipping, the camera should be packed in its original packing.
- Use water proof tape to cover all the wires, cables which will be exposed outdoor after the camera installation.

There are a number of factors involved in successful camera installation. Follow the suggested installation steps and go through the check lists. This guide will help you to make your camera installation smooth and easy.

Plan for installation location

Setup Camera with CD

Hardware Installation

Plan for Installation

Viewing angle

The TV-IP322WI is a bullet camera with a focused viewing angle (71.6° horizontal) that provides non-distorted and detailed images. Choose the location where has good angle to shoot the image you expect to see. The motion detection area should also be considered when installing the camera.

Weather Conditions

The camera is an outdoor dome camera, which fits most installations indoor and outdoor. The camera can work under a wide range of weather conditions. For severe weather conditions. Using the camera in milder weather conditions will help extend the camera's life and preserve the quality of the camera image.

Moisture: Avoid damp or moist environments whenever you can. The camera is an IP66 grade water proof camera, and it will work in moist environments. However, rain may affect the picture quality, especially at night, water may reflect the light from the infra-red illumination and degrade picture quality.

Temperature: Camera works within a specified temperature range. Areas with severe temperatures should be avoided when installing the camera. It's recommended that you use an enclosure with a heater and blower if you plan on using this camera outside of the specified temperature range.

© Copyright 2017 TRENDnet. All Rights Reserved.

Sunlight: Avoid direct sun light exposure. Direct sun light will damage the image sensor. If sunlight is necessary for your viewing purposes, provide protection for the image sensor.

Lighting: Consider installing your camera faces the same direction of the light sources. Shooting images with top-down position outdoor or next to the existing light source are good choices. Avoid the light source if it creates a shade that darkens the viewing area.

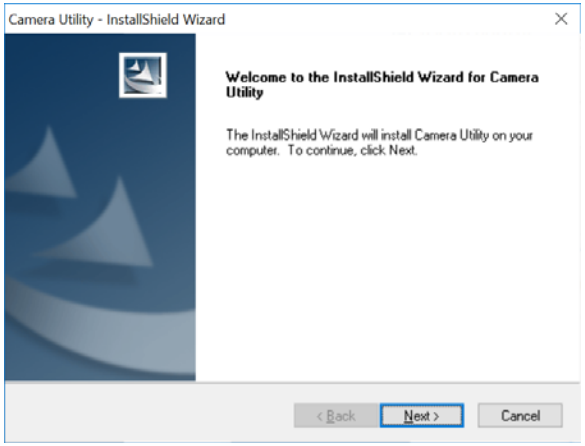
Waterproof Cap

The TV-IP312PI is IP66 weather rated camera. There is a set of network cable waterproof cap that comes with the package. Run the network cable going through the cap and then using crimp the tool to crimp the cable with an RJ-45 modular. Plug in the network cable and then tighten the waterproof cap to prevent water running into the camera through the cable.

Setup Camera with CD

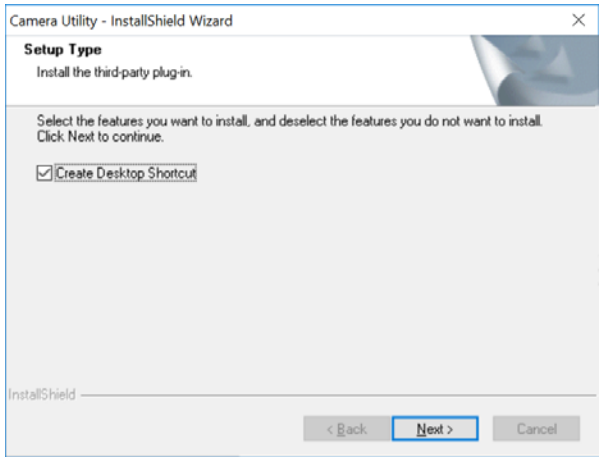
1. Insert the Installation CD-ROM into your computer's CD-ROM drive to initiate the Auto-Run program. Choose your preferred language and then click the **Install Camera Utility**.

2. Install the Camera Utility as instructed

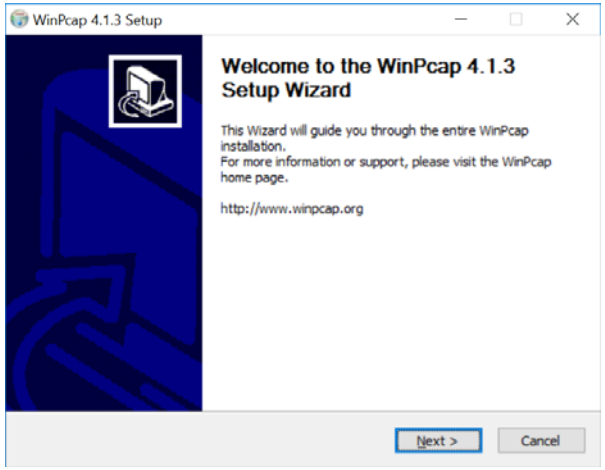


© Copyright 2017 TRENDnet. All Rights Reserved.

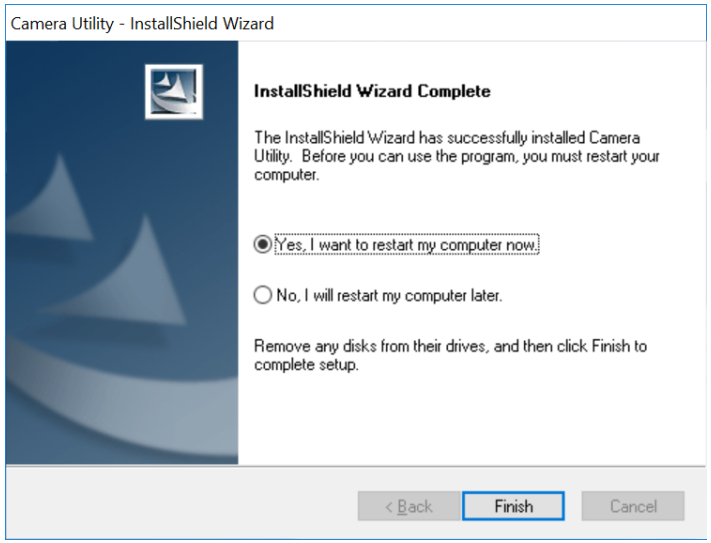
3. Last, click Next to finish the installation.



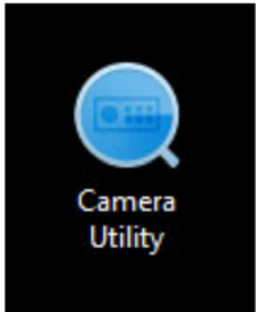
4. This will also require you to Install WinPcap program if you don't have this installed before, please follow the on screen Instructions to Install It.



5. Restart the computer after the Installation.

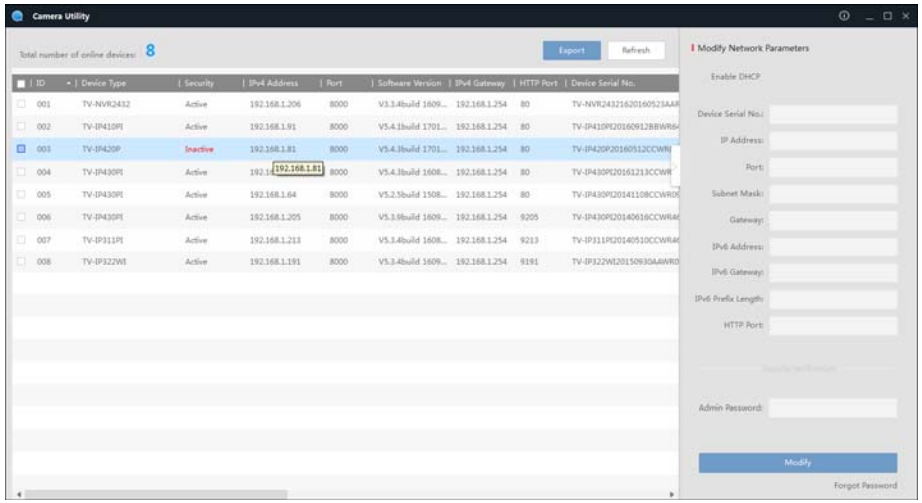


6. After the computer has restarted, double click on the Camera Utility icon to launch the program.



© Copyright 2017 TRENDnet. All Rights Reserved.

7. Find the camera you would like to access and configure then double click on the IP address.

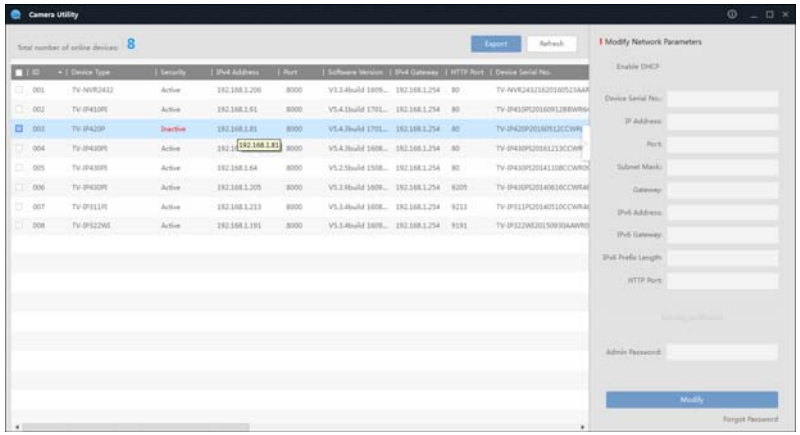


8. Continue to the next section **Access your Camera with the Web Browser** for detail configurations of the camera.

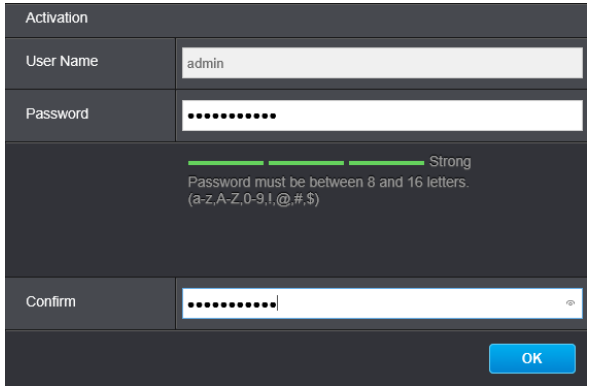
Access Camera through the Web Browser

Logging-in to the Camera for the First Time (Windows)

1. Find the camera from the Utility and double click on the IP address to open the browser.

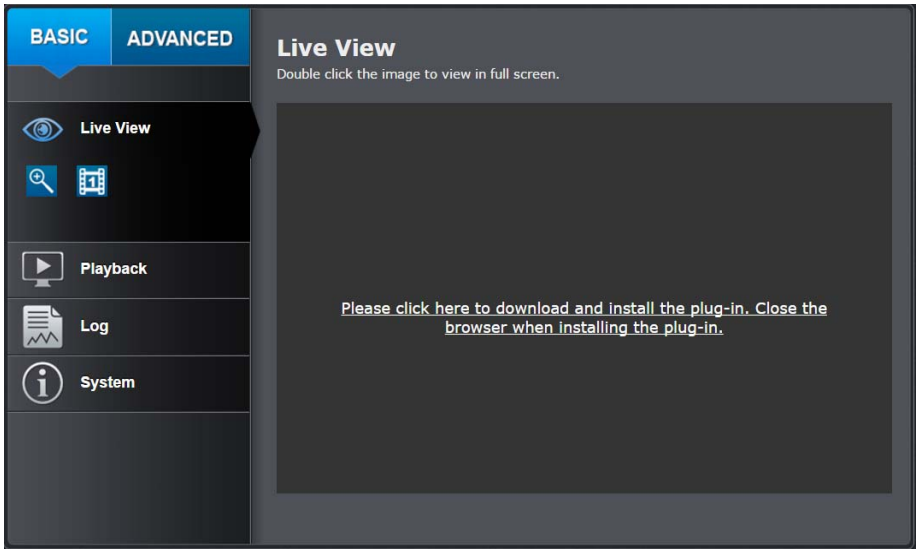


2. Activate the **admin** User Account by entering your desired password, and then click **OK**.



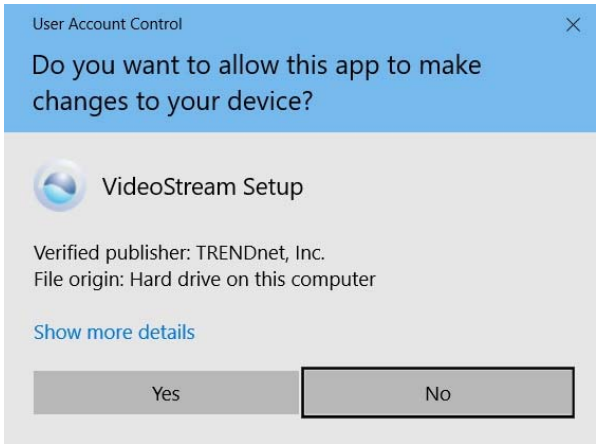
© Copyright 2017 TRENDnet. All Rights Reserved.

3. The camera management page will detect if you installed the camera video streaming plug-in or not. Click the link to download the plug-in from the camera.

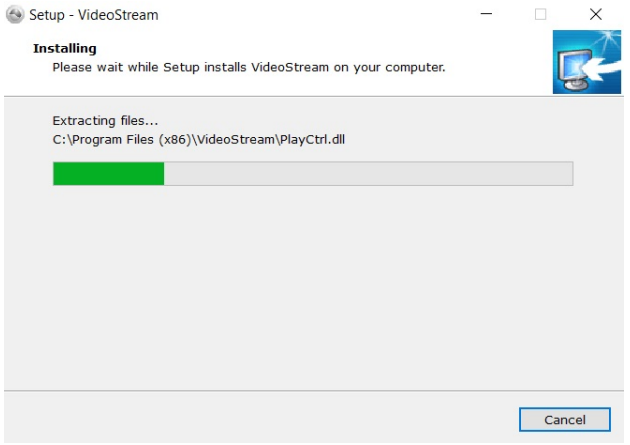


4. Download the plug-in to your computer and then and close your browser. Launch the plug-in installation to install the plug-in.

5. Permission request may show up depends on the Internet security settings on your computer. Click **Yes** to install the plug- in.

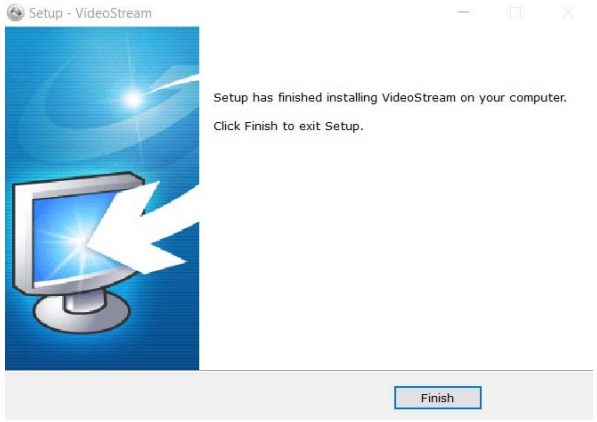


6. Click **Next** to install the plug-in.



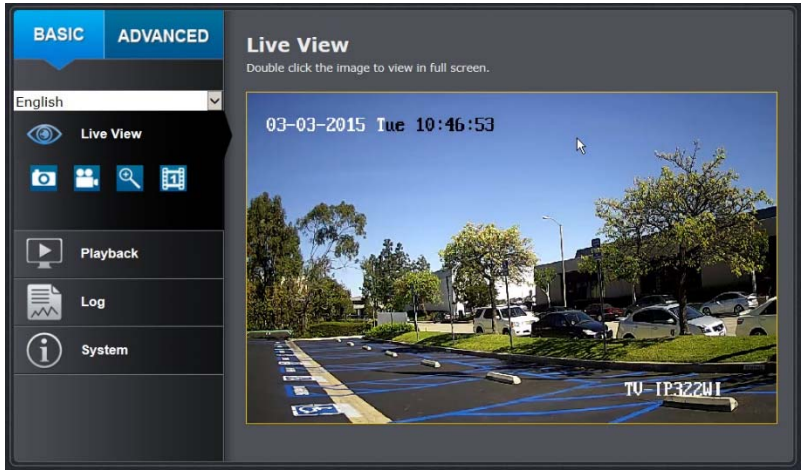
© Copyright 2017 TRENDnet. All Rights Reserved.

7. Click **Finish** to finish the installation.



8. Open the browser and login again, enter the user name **admin** and new password again to start secured session.

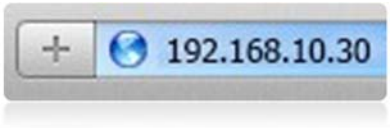
9. Refresh the browser and the Live View page will show up and begin streaming video.



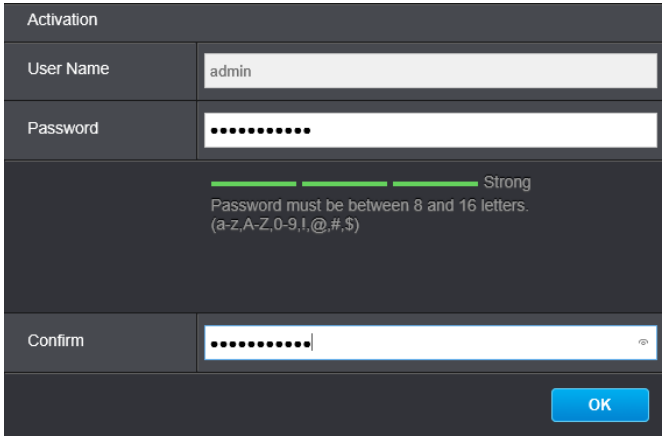
© Copyright 2017 TRENDnet. All Rights Reserved.

Logging-in to the Camera for the First Time (OS X)

1. Open the web browser on your computer. In the address bar, enter the default IP address of the camera 192.168.10.30. If the camera is connected to a router/network, please use the Windows Camera Utility to find the exact IP address.

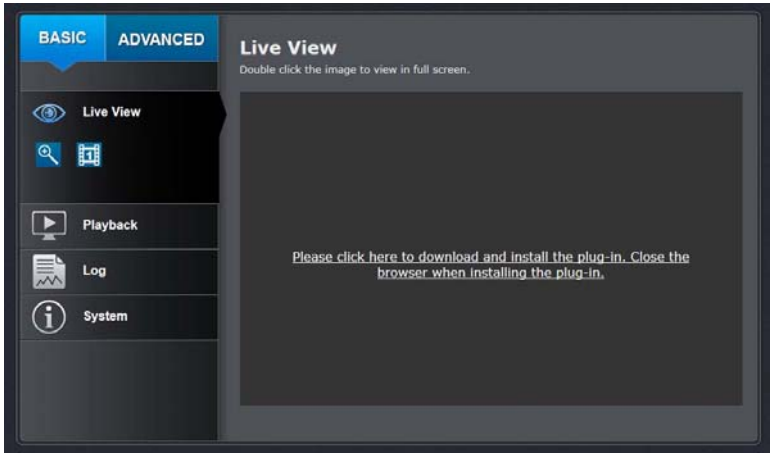


2. Activate the **admin** User Account by entering your desired password, and then click **OK**.



3. The camera management page will detect if you installed the camera webcomponent plug-in or not. Click the link to download the plug-in from the camera.

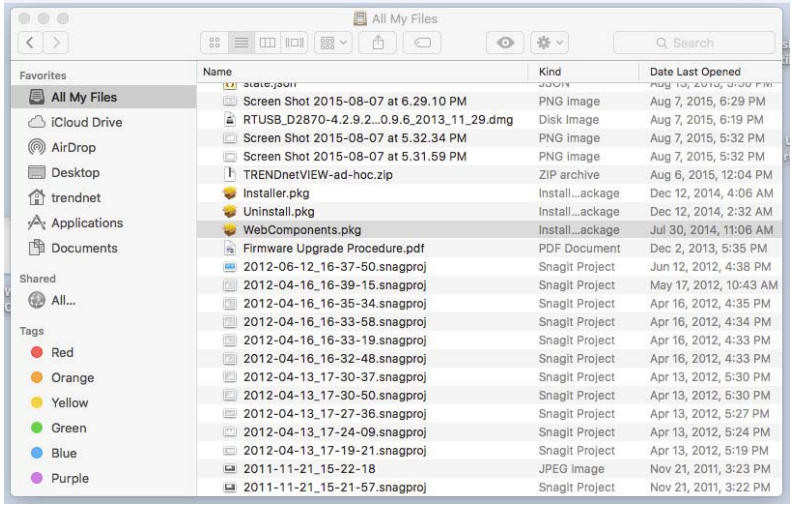
   *Note: Internet connection is required to download the plug-in. If you do not have Internet access, you can find the plug-in on the CD comes with the package under **/Mac** folder.*



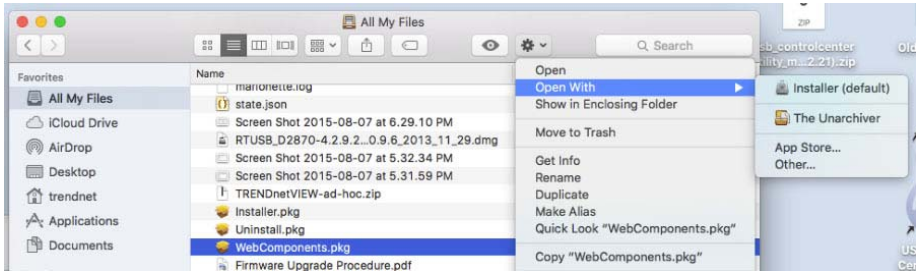
4. Quit your browser completely by **command-Click** on the browser icon and then click **Quit** before installing the plug-in.

© Copyright 2017 TRENDnet. All Rights Reserved.

5. Go to the **Finder** and navigate to the **Download** folder. **Command-Click** the **WebComponents.pkg** and then click **Open**. (If you are install the plug-in from the CD when you don't have internet connection, just browse to /Mac folder and double click the **WebComponents.pkg** file.)

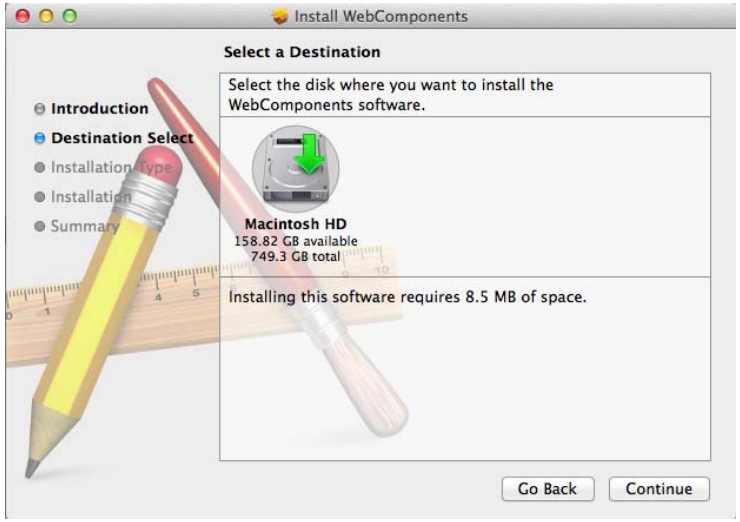


6. Click **Open with → Installer** to start installation.



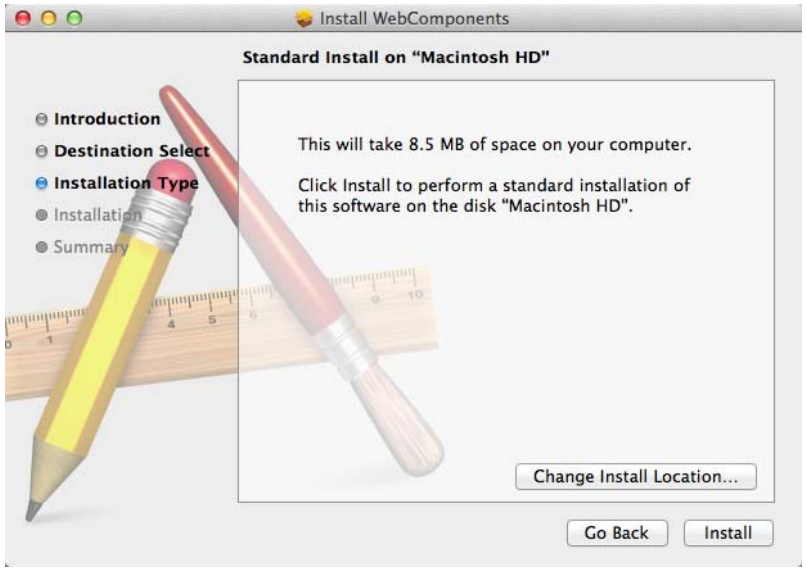
7. Click **Continue** to install the plug-in.

8. Select a destination to install the plug-in. Then click **Continue**.

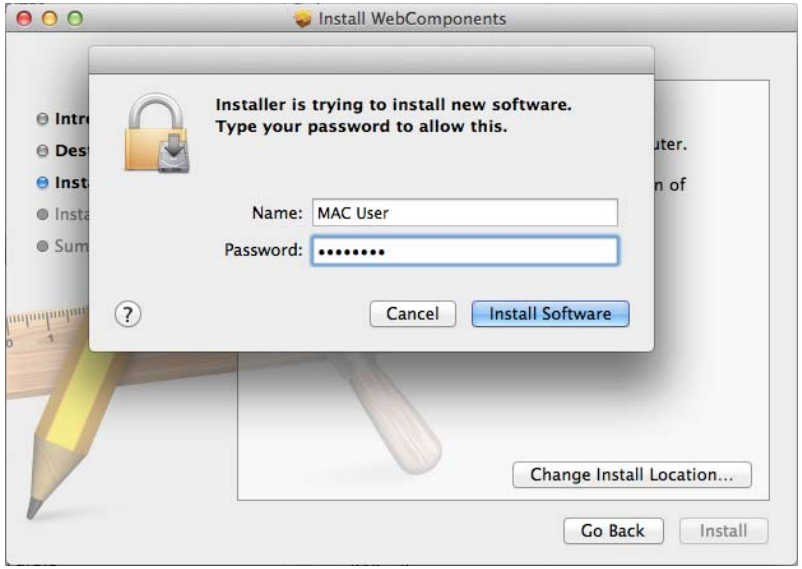


© Copyright 2017 TRENDnet. All Rights Reserved.

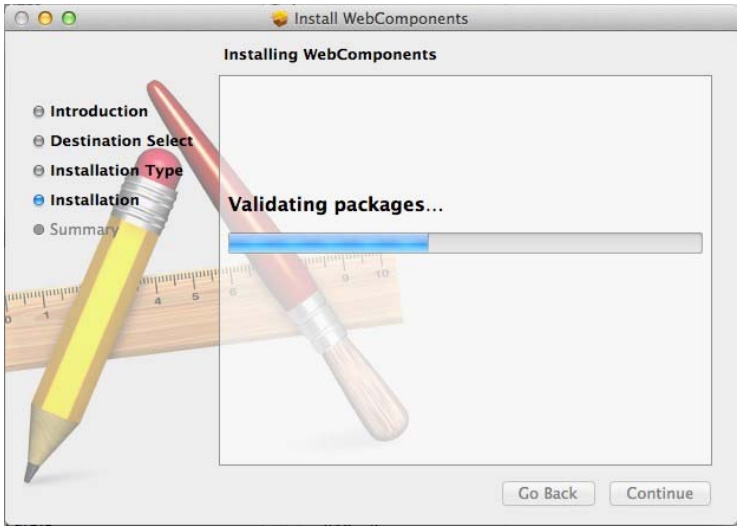
9. Use the default location and click **Install**.



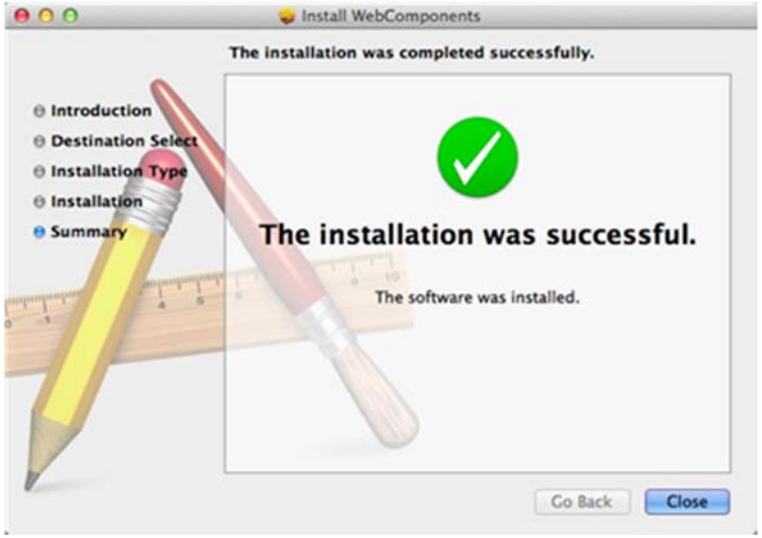
10. Enter your password and click **Install Software**



11. Installation will process automatically.

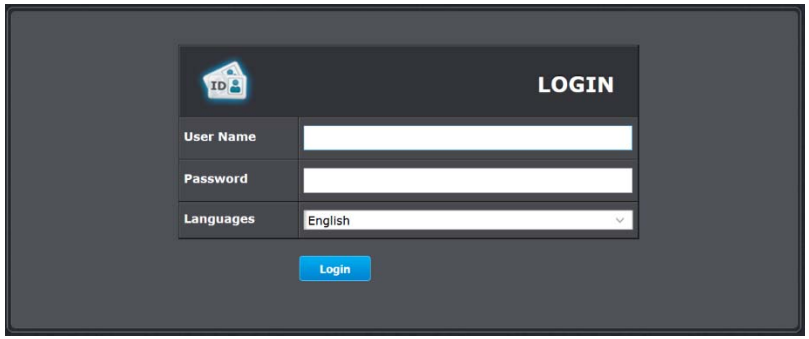


12. Click **Close** to exit the installation.



© Copyright 2017 TRENDnet. All Rights Reserved.

13. Open the browser and login again with the default IP 192.168.10.30 or the IP that was dynamically assigned by your router. Enter the user name, **admin**, and the default password, **admin,** and then click **OK**.



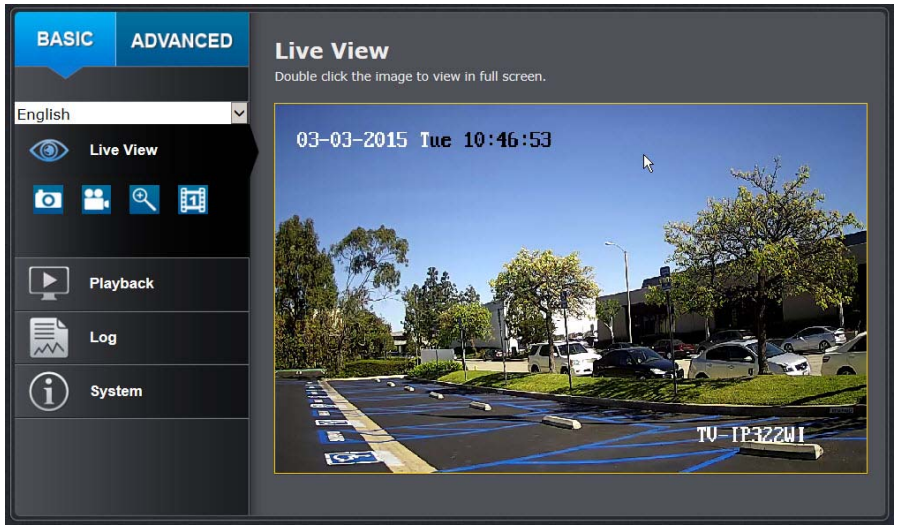
14. The Live View page shows up and the video starts to stream.

© Copyright 2017 TRENDnet. All Rights Reserved.

Basic Settings

Live View

After you log-in into the camera management page, you'll see the Live View page.

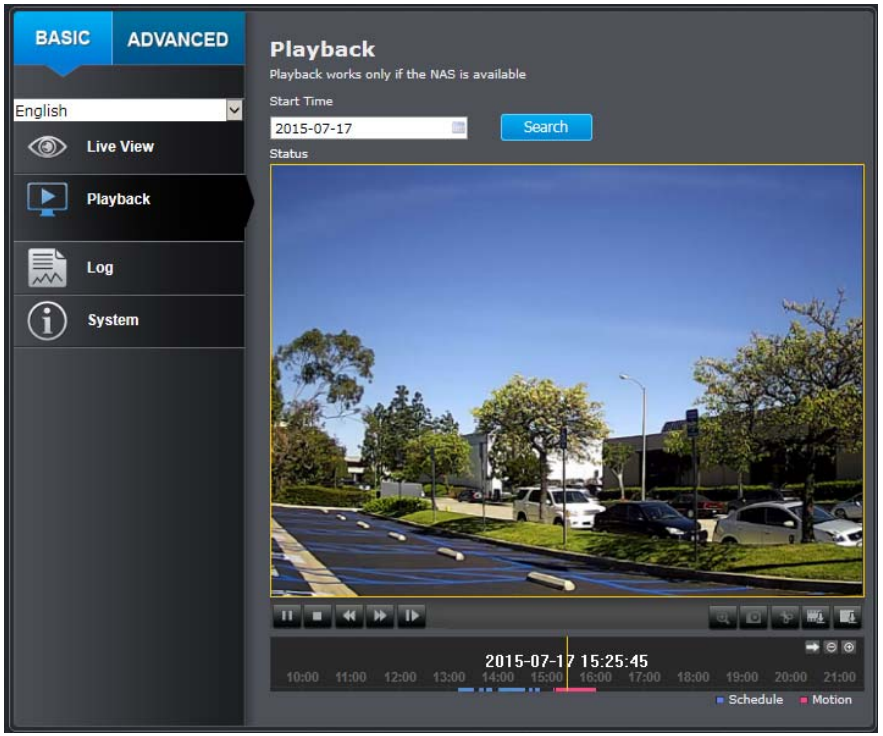


Multi-Language	Change your preferred language anytime
Snapshot	Click this icon to take a video snapshot
Recording	Click once to start recording. Click it again to stop recording. The status bar will indicate if it is in recording state or not
Zoom	Click once to enable zoom. Then, click and drag the area on the picture to zoom in. Click once on picture for 100% zoom. Click the icon again to disable zoom. The zoom function works in full screen mode as well
Video Stream	The camera has two video streams: H.264 and MJPEG. Switch to view the different video streams by clicking this icon
Full Screen Mode	Double click the picture to view in full screen mode. Double click again or press escape key on your keyboard to exit full screen mode
Status Bar	The status bar shows the status you are at, including enabled the zoom, recording video, and successfully taking a snapshot Capture succeeded.

© Copyright 2017 TRENDnet. All Rights Reserved.

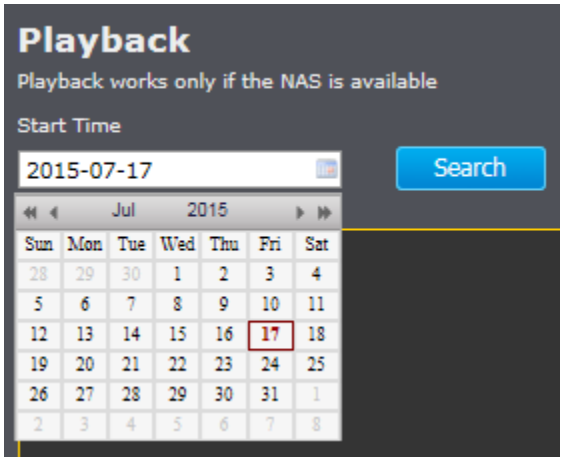
Playback

You can playback the video recording on the network storage and download the video clip and snapshots to your local computer.



Search for video recordings

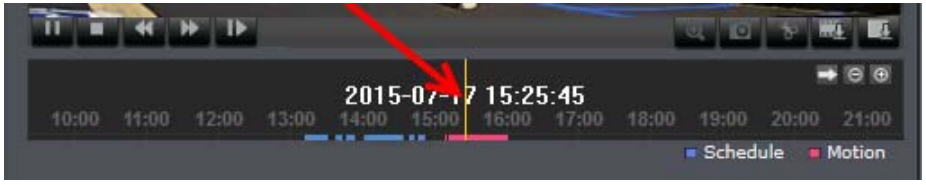
Click the date selection, and then choose a date for the date range of your recording. Click Search to start searching.



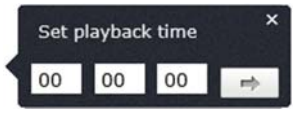
Time line

There is a playback head in the center of the time line represented by a yellow vertical line. To look for a specific video recording, move the time line by clicking and dragging it. If the recording is short, zoom in by clicking button. Click to zoom out the time scale. If you know the exact time of the day you are looking for, click then enter the time you want to playback.

Different types of recordings are identified differently. The scheduled recordings are marked in blue, and the recordings triggered by motion detection are marked in red.

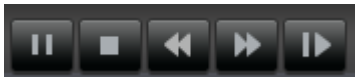


© Copyright 2017 TRENDnet. All Rights Reserved.

	Click and drag the time line to move your time manually
	Click this button to zoom in the scale
	Click this button to zoom out of the scale
	Click this button to specify a specific time of the day.  And the click to confirm selection and then click **X** to close this dialog box.

Play video

Use playback controls to play back the video recordings**.**



	Click this button to play the video
	Click this button to pause video playback
	Click this button to stop playback
	Click this button to increase playback speed*
	Click this button to decrease playback speed*
	Click to playback video frame by frame. Click again for the next frame.
	*There are 5 steps of playback speeds. You can choose from ¼, ½ , 1, 2, and 4 times of original speed.

Take Images from a video playback

You can take snapshots from playback video or make new video clips from the video you are playing back.

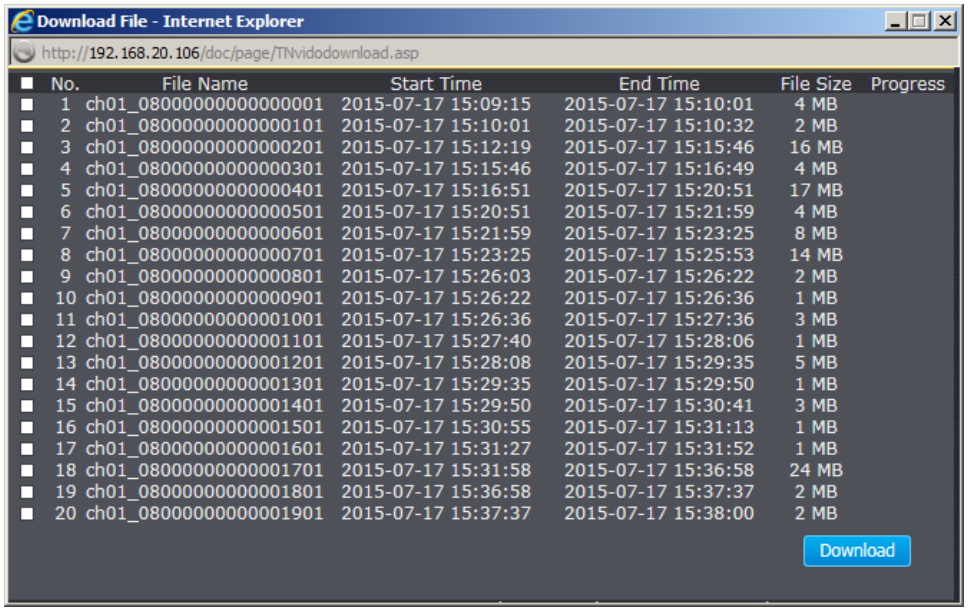
	Click this button to enable zoom. Then click and drag on the video to define the area you want to zoom in. Click again to get back to 100% zoom. Double click to show video in full screen and press **ESC** on keyboard to exit full screen mode
	Click this button to disable zoom
	Click this button to take a snapshot of current playback
	Click this button to start clipping a video from playback
	Click this button to stop clipping a video from playback

Download sections of a video

To save complete video sections or snapshots, you can download the files directly.

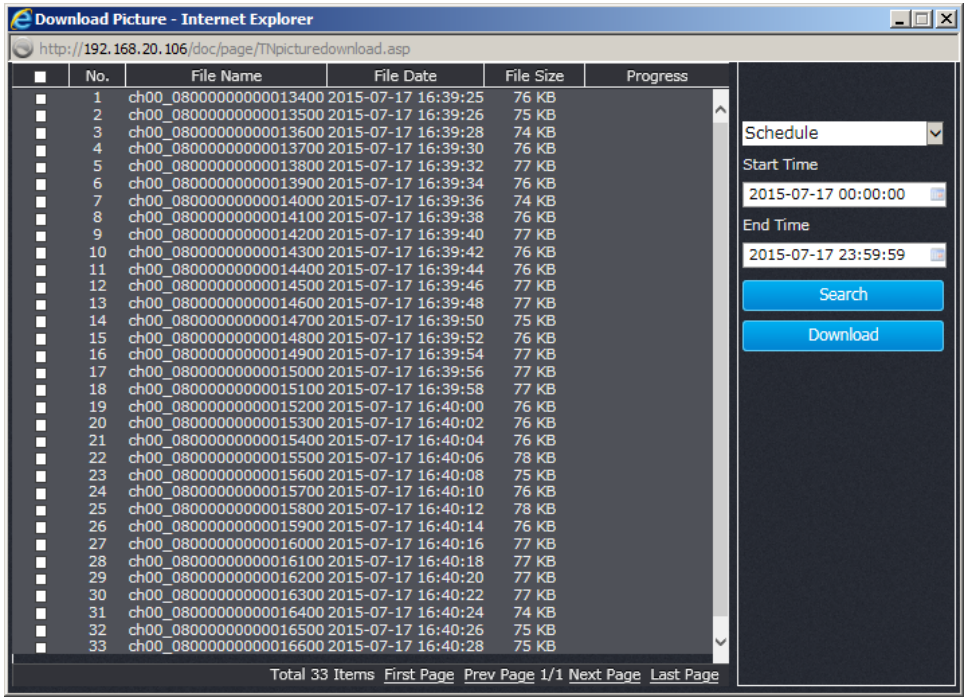
	Click this button to download video sections

© Copyright 2017 TRENDnet. All Rights Reserved.



Download snapshots

	Click this button to download snapshots



Select the type of event that triggered the snapshots. Choose the **Start Time** and **End Time**. Then, click **Search** to find the snapshot list. Check the time of the snapshot, and then select the snapshots you want to download, then click **Download**.

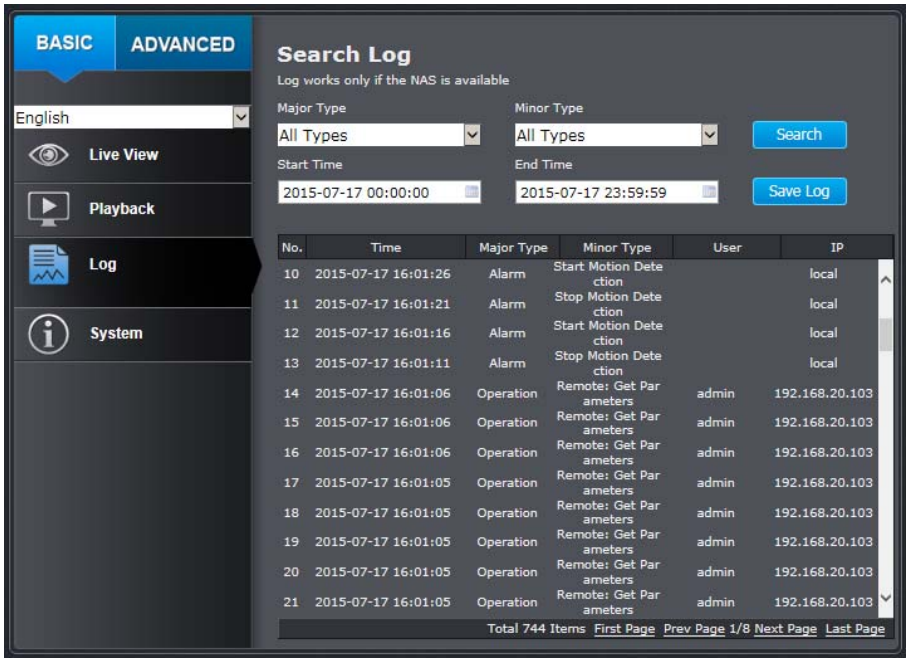
Note: Where can I find saved files?

Videos and snapshots captured from Playback will save to your computer.

© Copyright 2017 TRENDnet. All Rights Reserved.

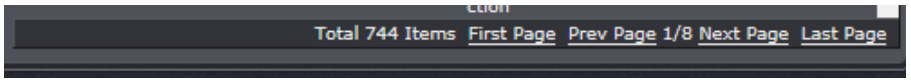
Log

The log of the camera will be saved on the network storage. You can search the relevant records and save to your local computer.



Search for logs

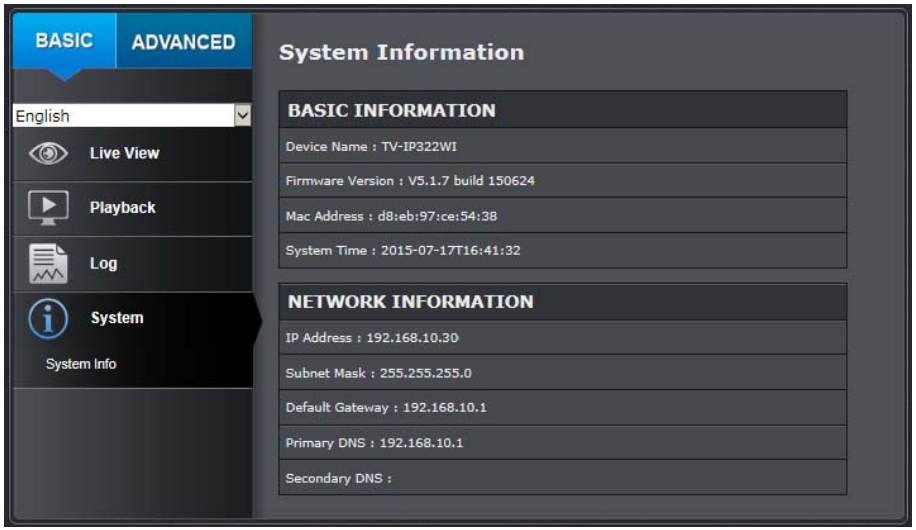
Click the type of log and then the Start Time and End Time. Click Search to start searching.



Click **First Page, Prev Page**, **Next Page**, and **Last Page** to show the logs. Click **Save Log** to save the logs to your computer.

System

System Information page shows the camera basic information. Click **System** then click **System Info** to show the page.



Basic Information	
Device Name:	User defined device name
Firmware Version:	Firmware Version
MAC Address:	MAC address of the camera
System Time:	Display the system time
Network Information	
IP Address:	IP address of the camera
Subnet Mask:	Network range of IP address
Default Gateway:	Gateway for the camera
Primary DNS:	Primary DNS server address
Secondary DNS:	Secondary DNS server address

© Copyright 2017 TRENDnet. All Rights Reserved.

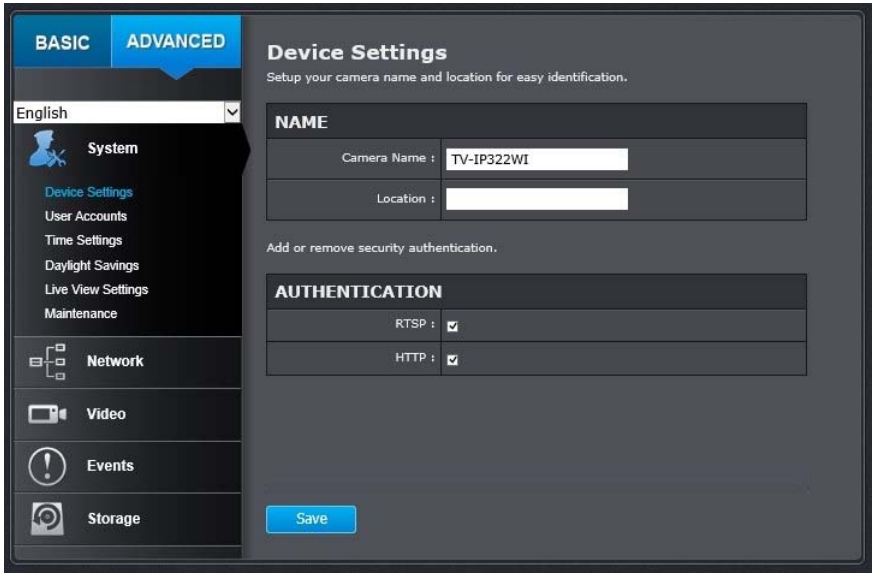
Advanced Settings

System

Device Settings

Setup your camera name and location for easy identification. This camera name will also be recognized by other network camera software as the name of this camera.

OSD, On Screen Display, the camera name is setting up here as well.

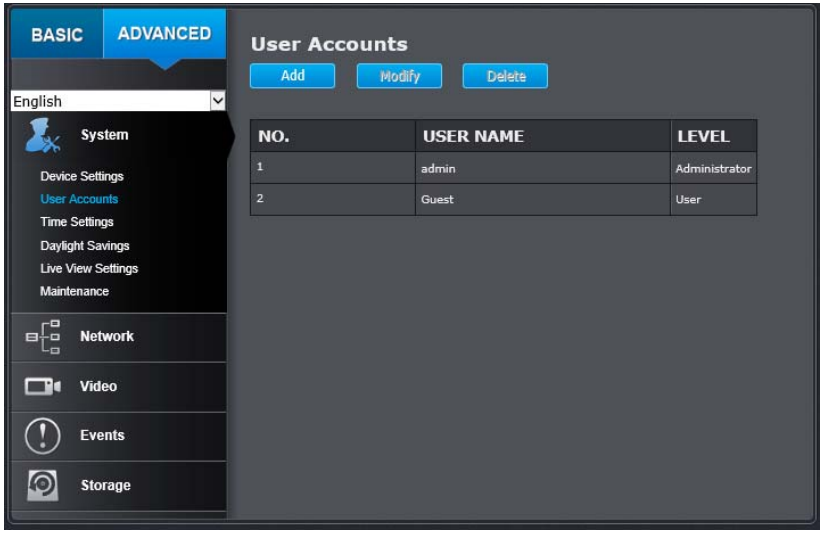


Names	
Camera Name:	Name of the camera. The camera name setup here can be discovered by other network camera software and OSD, On Screen Display. The default is the camera's model name:
Location:	Label where you installed this camera
Authentication	
RTSP:	Camera's video stream can be accessed with RTSP, Real Time Streaming Protocol. Only the administrator and users can view this video stream. Un-checking this box will allow everyone access to this video stream without authentication. Default: checked.
HTTP:	Camera can be accessed via password protected web management interface. Un-checking this box will allow anyone to access this camera and change its settings. Default: checked.

User Accounts

You can setup up to 16 user accounts to access the camera's video stream with a web browser or real time video stream (RTSP). Only one administrator account can be setup to configure the camera and cannot be deleted.

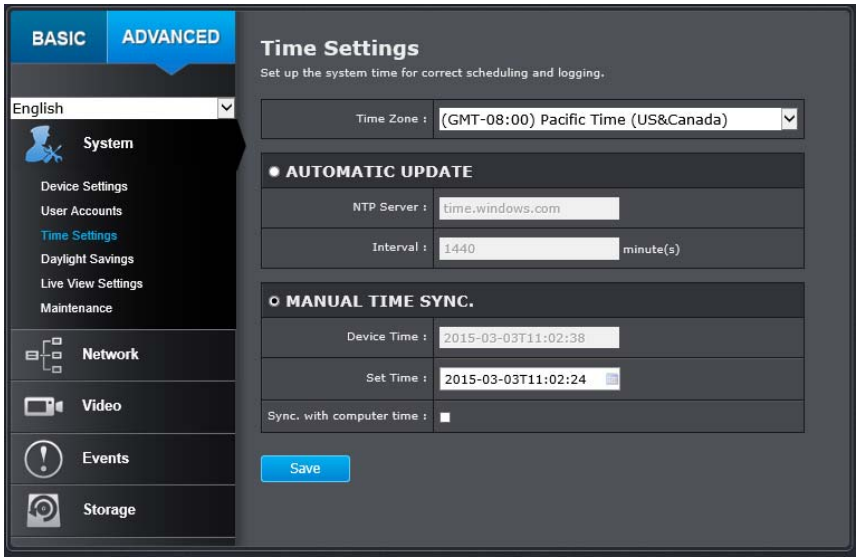
© Copyright 2017 TRENDnet. All Rights Reserved.



User Accounts	
Add:	Click **Add** button to add one user account. User account could view but could not change any setting.
Modify:	To change a user's name and password, highlight the user by clicking on it. Then, click **Modify** button. You can change the user's name and password. You can also change the administrator's password. The administrator's name is fixed, you cannot change it. Click **OK** to save the changes.

Time Settings

The accuracy of the system clock is important for scheduling and accurate logging. You can synchronize the system time with your computer, or automatically check the time accuracy with a network time server (NTP server).



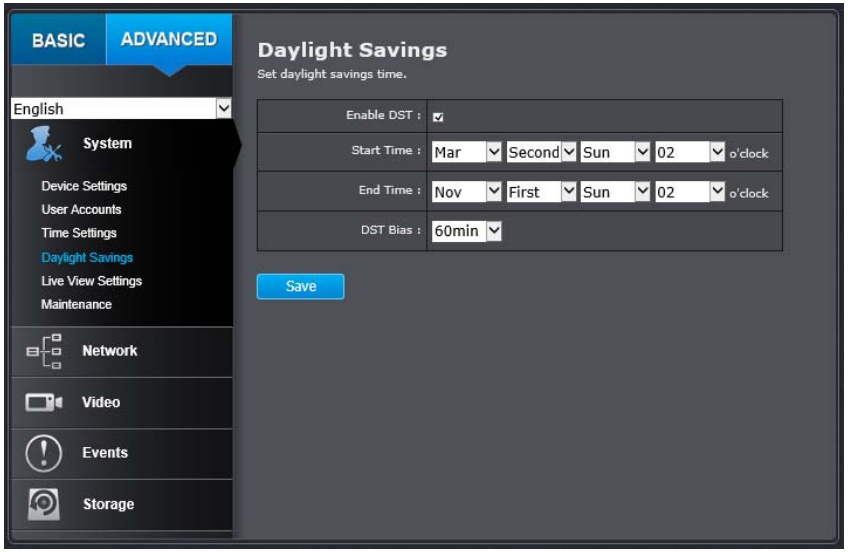
Time Zone	Select a time zone
Automatic Update	
NTP Server:	Specify a time server (NTP server) to synchronize with. (e.g. time.windows.com)
Interval:	The time interval that the camera will synchronize the time with NTP server. Default: 1440 minutes (24 hours).
Click **Save** to save the changes	
Manual Time Sync.	
Device Time:	The system time of this camera.

© Copyright 2017 TRENDnet. All Rights Reserved.

Set Time:	Click the calendar icon and manually select the date. Check the **Sync. with computer time** to copy the time from your computer.
Click **Save** to save the changes	

Daylight Savings

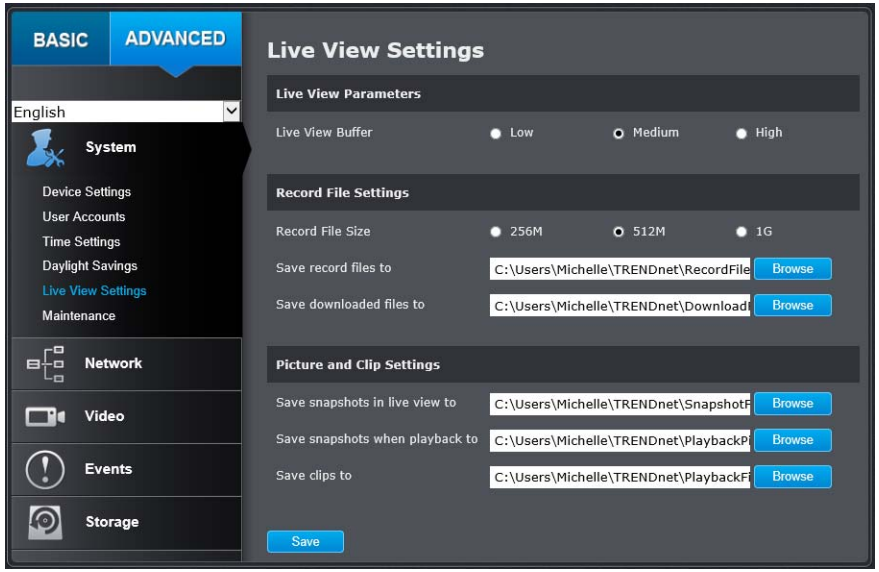
Setup daylight settings for the camera.



Daylight Saving	
Enable DST:	Check this box if your time zone has daylight savings
Start Time:	Enter the Month and Date that daylight savings starts
End Time:	Enter the Month and Date that daylight savings ends
DST Bias:	Enter how much time the daylight saving adjusted by daylight savings
Click **Save** to save the changes	

Live View Settings

Setup the Live View buffer and the destination of record file or snap shot.



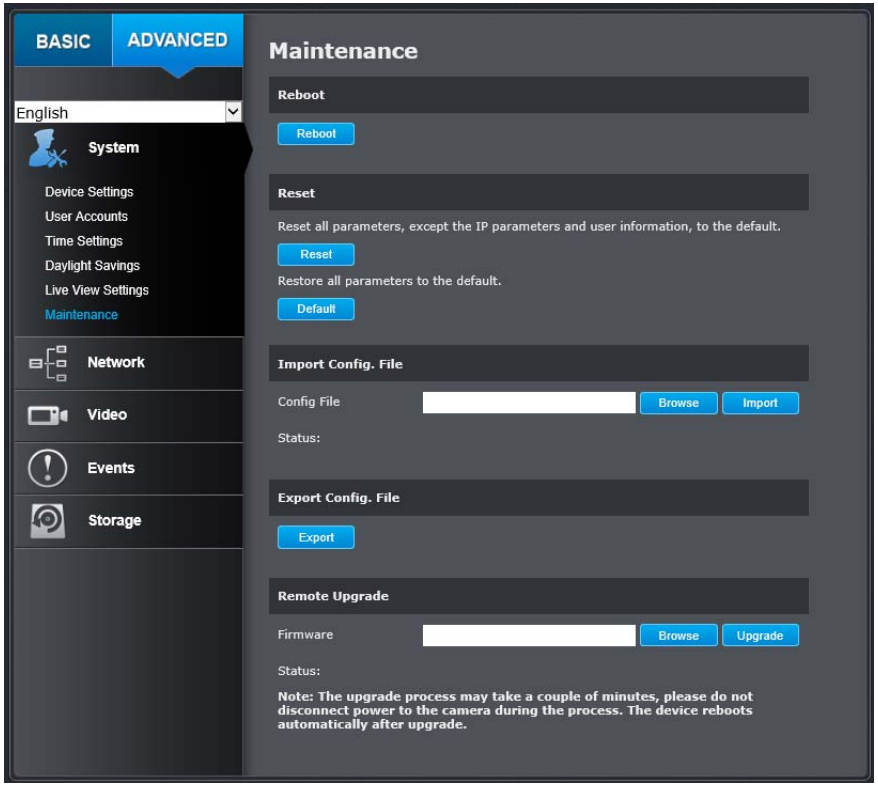
Live View Parameters	
Live View Buffer:	Configure the buffer size for live view video stream. With low buffer size setting, you can get real-time video stream, but the video may be stop and go if the network is congested. With high buffer setting, you can have smooth video streaming, but the video is delayed from the time happening. Medium size can have moderate video stream smoothness and time delay.
Record File Settings	

© Copyright 2017 TRENDnet. All Rights Reserved.

Record File Size:	This size of live view video recording. You can choose 256MB, 512MB, or 1GB a file. Smaller file size is good for many short recordings.
Save Record Files to:	By default, files will be saved under your user name, and under the TRENDnet/RecordFiles. Click **Browse** and choose a new destination if you want to save the file somewhere else.
Save Download Files to:	By default, files will be saved under your user name, and under the TRENDnet/DownloadFiles. Click **Browse** and choose a new destination if you want to save the file somewhere else.
Picture and Clip Settings	
Save Snapshots in live view to:	By default, files will be saved under your user name, and under the TRENDnet/SnapshotFiles. Click **Browse** and choose a new destination if you want to save the file somewhere else.
Save snapshots when playback to:	By default, files will be saved under your user name, and under the TRENDnet/PlaybackPics. Click **Browse** and choose a new destination if you want to save the file somewhere else.
Save Clips to:	By default, files will be saved under your user name, and under the TRENDnet/PlaybackFiles. Click **Browse** and choose a new destination if you want to save the file somewhere else.
Click **Save** to save the changes	

Maintenance

You can do the camera system maintenance on this page.



Reboot	
Reboot:	Click this button to reboot this camera.
Reset	
Reset:	Reset all camera parameters except the IP parameters and user information.
Default:	Load complete factory default settings to the camera.

© Copyright 2017 TRENDnet. All Rights Reserved.

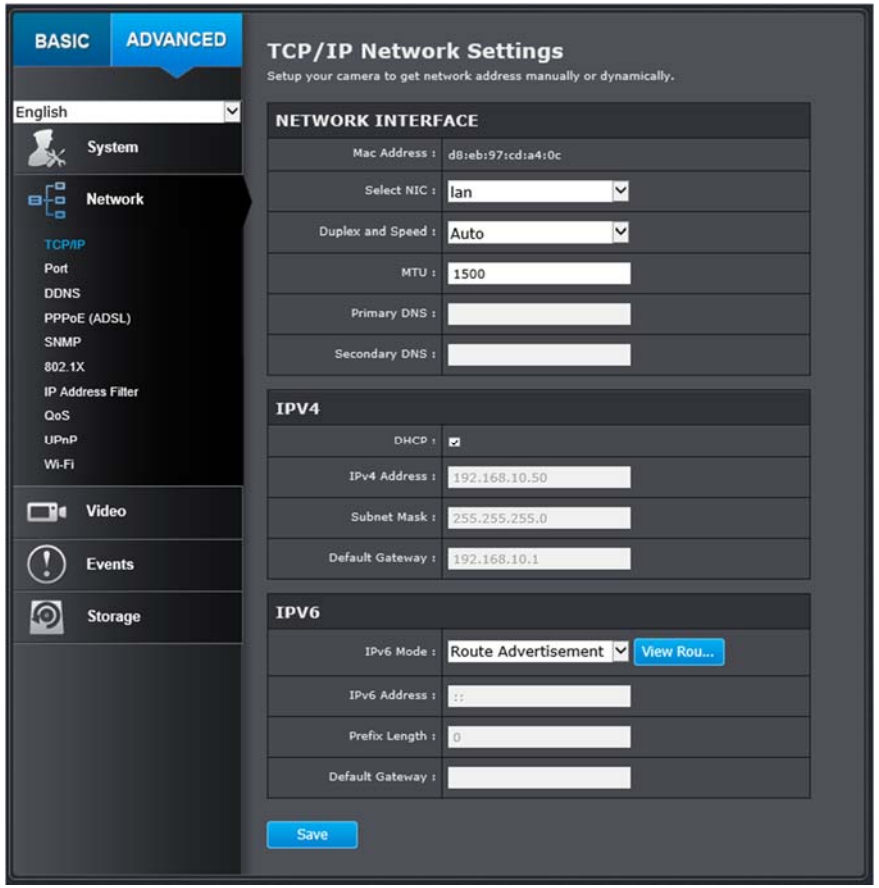
Import Config. File	
Config File:	To load previously saved configurations, click **Browse** to find the configuration file and then click **Import**.
Status:	Shows the status in loading configuration file.
Export Config. File	
Export:	Click **Export** to download configuration file. The file will be downloaded to the **Download** folder by default.
Remote Upgrade	
Firmware:	Click **Browse** to find the latest firmware and then click **Upgrade***.
Status:	Shows the status in firmware upgrade.
Click **Save** to save the changes	

* TRENDnet may periodically release firmware upgrades that might add features or fix problems associated with your TRENDnet model and version. To find out if there is a firmware upgrade available for your device, please check your TRENDnet model and version using the link. http://www.trendnet.com/downloads/

Network

TCP/IP

Setup your basic IPv4 and IPv6 network settings on this page.



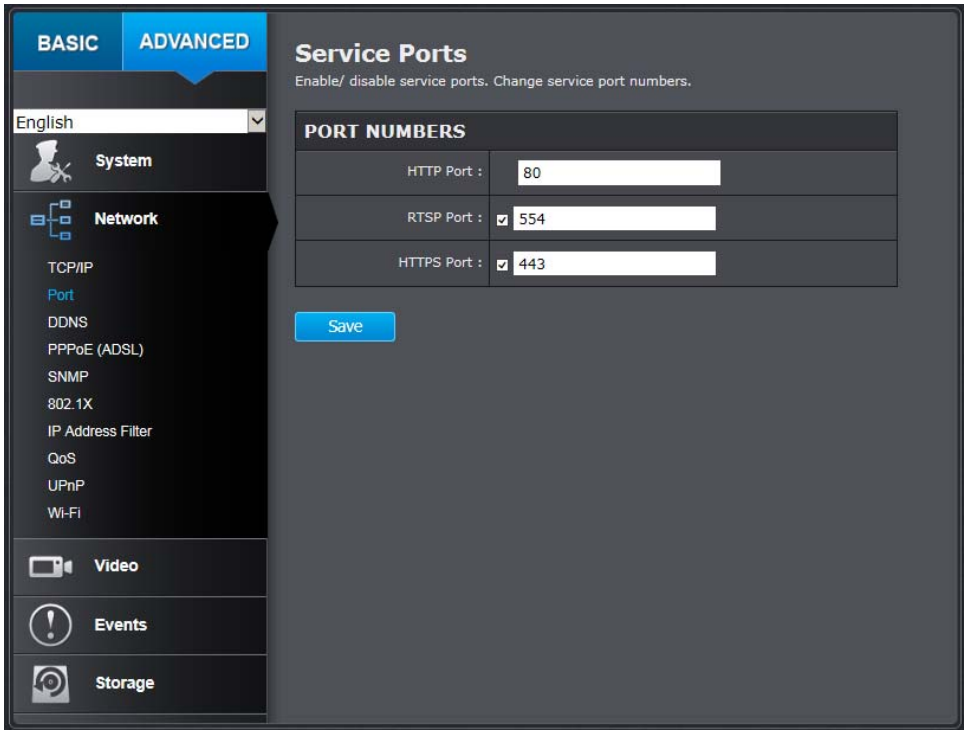
Network interface	
MAC Address:	Click this button to reboot this camera.

© Copyright 2017 TRENDnet. All Rights Reserved.

Duplex and Speed:	Choose one of the Ethernet duplex and speed to match your network. Default: auto.
MTU:	Maximum transmission unit. The maximum byte size Ethernet data field.
Primary DNS:	Enter your first IPv4 or IPv6 DNS server address
Secondary DNS:	Enter your second IPv4 or IPv6 DNS server address
IPv4	
DHCP:	Check this box if the IP address is assigned by DHCP server.
IPv4 Address:	Load complete factory default to the camera.
Subnet Mask:	Network range of the subnet
Default Gateway:	The default route going further from camera IPv4 subnet.
IPv6	
IPv6 Mode:	Choose Manual, DHCP, or Route Advertisement. Click **View Route Advertisement** to find a route advertisement.
IPv6 Address:	IPv6 address of the camera.
Prefix Length:	Length of network prefix
Default Gateway:	The default route going further from camera IPv6 subnet.
Click **Save** to save the changes	

Port

You can change the service ports number of the camera or disable RTSP or HTTPS services.



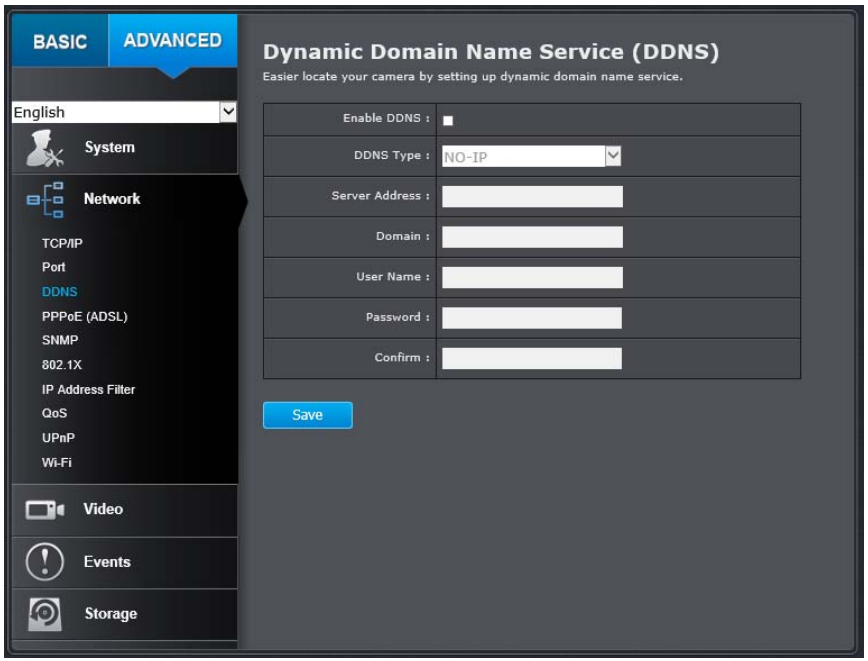
Port Numbers	
HTTP Port:	The default web access port. You can change the port number. However, you cannot disable the web service. The default port number is 80.
RTSP Port:	The Real-Time Streaming Protocol port for video streaming. You can change the port number or disable the service by uncheck the box. The default port number is 554.

© Copyright 2017 TRENDnet. All Rights Reserved.

HTTPS Port:	The secured web service port. You can change the port number, or you can disable the service by uncheck the box. The default port number is 443.
Click **Save** to save the changes	

DDNS

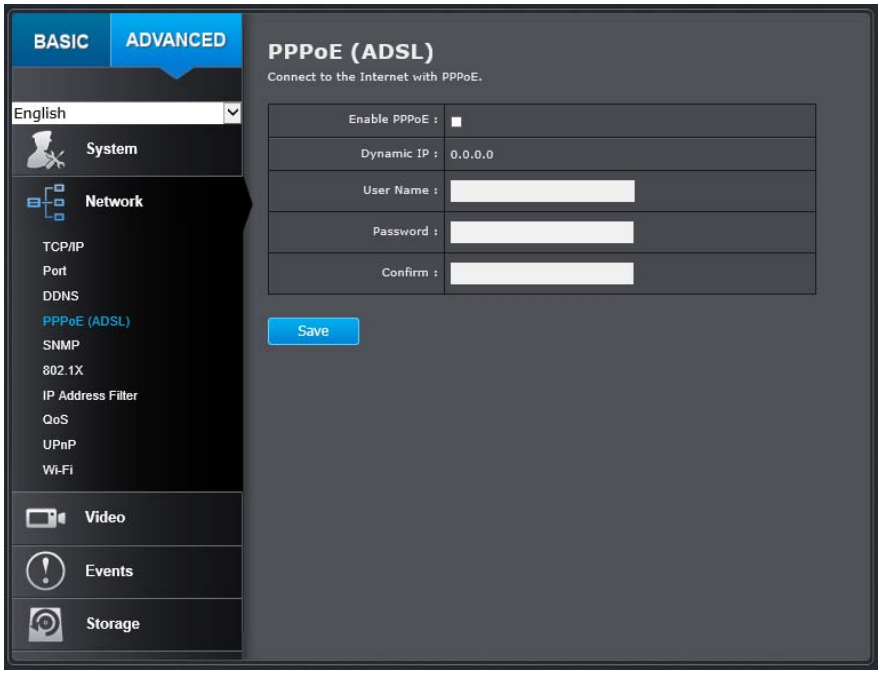
Dynamic Domain Name Service, DDNS, allows you to find your camera from the Internet with an easy to remember domain name.



DDNS	
Enable DDNS:	Check this box to enable DDNS Service.
DDNS Type:	Select a DDNS service provider.
Server Address:	Enter the DDNS server address.
Domain:	Enter your registered domain name on selected DDNS service.
User Name:	Enter the account name.
Password:	Enter the password.
Click **Save** to save the changes	

PPPoE (ADSL)

Setup PPPoE (ADSL) connection to connect your camera with your ISP, Internet Service Provider.



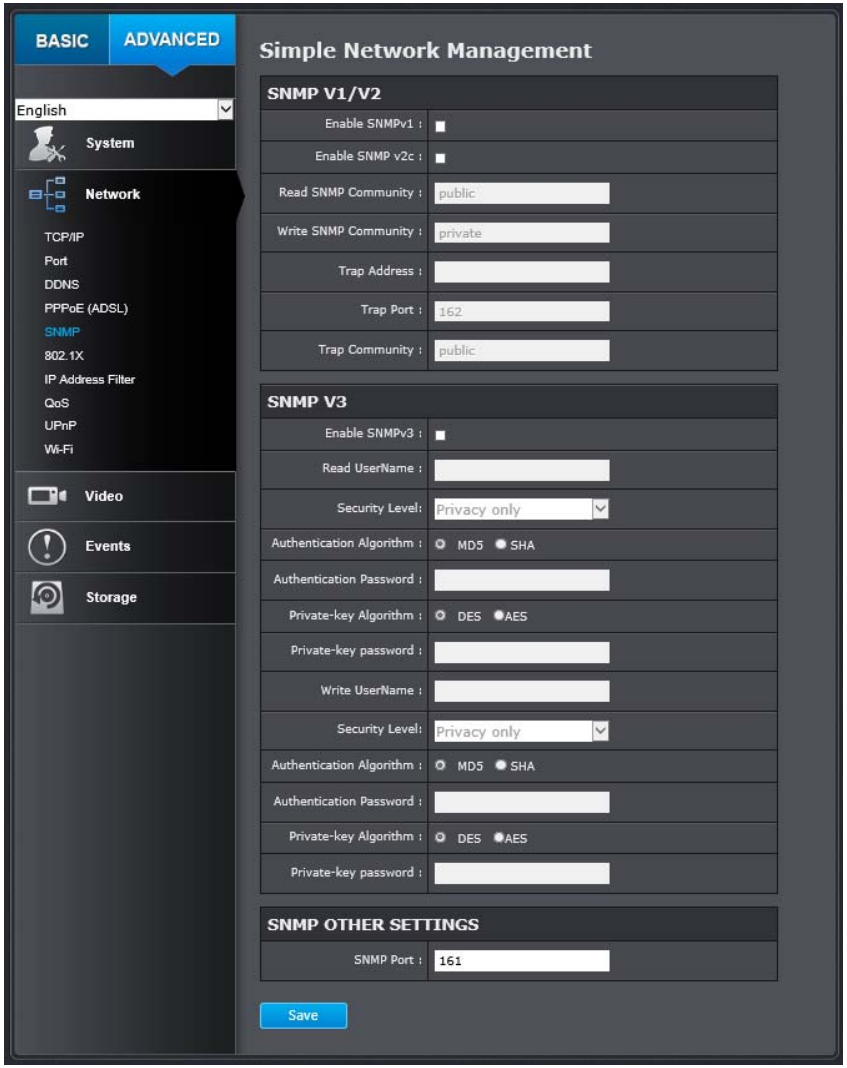
PPPoE (ADSL)	
Enable PPPoE:	Check this box to enable PPPoE connection.

© Copyright 2017 TRENDnet. All Rights Reserved.

Dynamic IP:	The IP address provided by ISP
User Name:	Enter the account name.
Password:	Enter the password.
Confirm:	Enter the password again.
Click **Save** to save the changes	

SNMP

SNMP Settings allows you to assign the contact details, location, community name and trap settings for SNMP. This is a networking management protocol used to monitor network-attached devices. SNMP allows messages (called protocol data units) to be sent to various parts of a network. Upon receiving these messages, SNMP compatible devices (called agents) return data stored in their Management Information Bases.



SNMP V1/V2	
Enable SNMPv1:	Check this box to enable SNMP v1 management.
Enable SNMPv2c:	Check this box to enable SNMP v2c management.

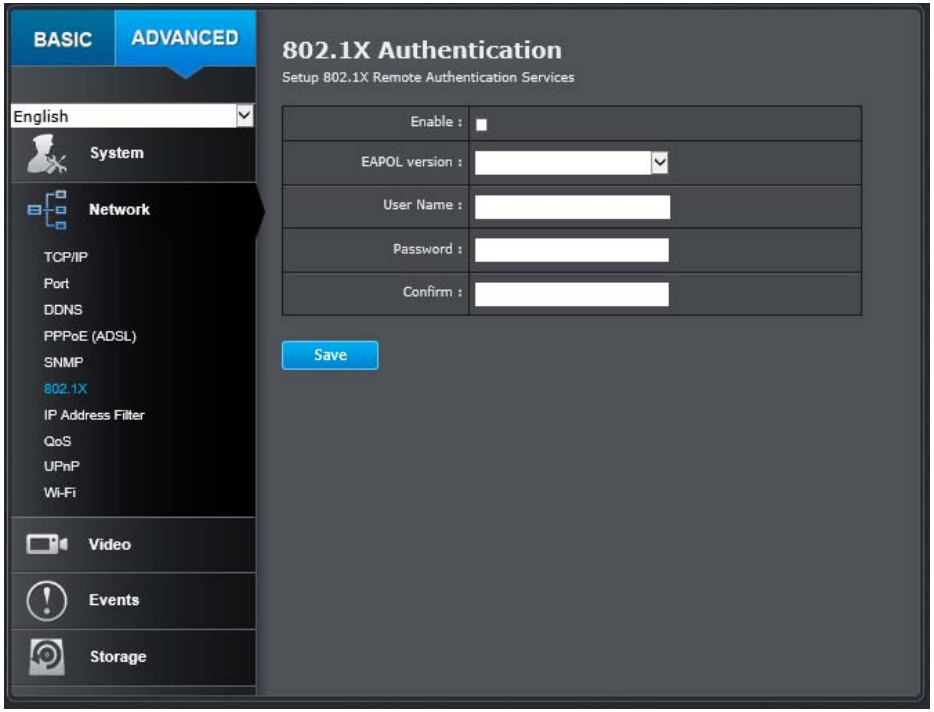
© Copyright 2017 TRENDnet. All Rights Reserved.

Read SNMP Community:	Specify the password for access the SNMP community for read only access
Write SNMP Community:	Specify the password for access to the SNMP community with read/write access
Trap Address:	Specify the IP address for the SNMP trap community
Trap Port:	Specify the port number for the SNMP trap community
Trap Community:	Specify the name of SNMP trap community
SNMP V3	
Enable SNMPv3:	Check this box to enable SNMP v3 management.
Read User Name:	SNMP v3 member user name
Security Level:	Choose one of the security levels. Authentication and Privacy Authentication only Privacy only
Authentication Algorithm:	Choose the authentication method to verify the source of information: MD5 or SHA.
Authentication Password:	Specify the authentication password between 8 to 32 letters.
Private-key Algorithm:	Choose the privacy key to encrypt SNMP messages: DES or AES.
Private-key Password:	Specify the privacy key between 8 to 32 letters.
Write User Name:	SNMP v3 manager user name
Security Level:	Choose one of the security levels.
Authentication Algorithm:	Choose the authentication method to verify the source of information: MD5 or SHA.
Authentication Password:	Specify the authentication password between 8 to 32 letters.
Private-key Algorithm:	Choose the privacy key to encrypt SNMP messages: DES or AES.
Private-key Password:	Specify the privacy key between 8 to 32 letters.

SNMP Other Settings	
SNMP Port:	SNMP service port number.
Click **Save** to save the changes	

802.1X

Setup 802.1X for remote authentication service.



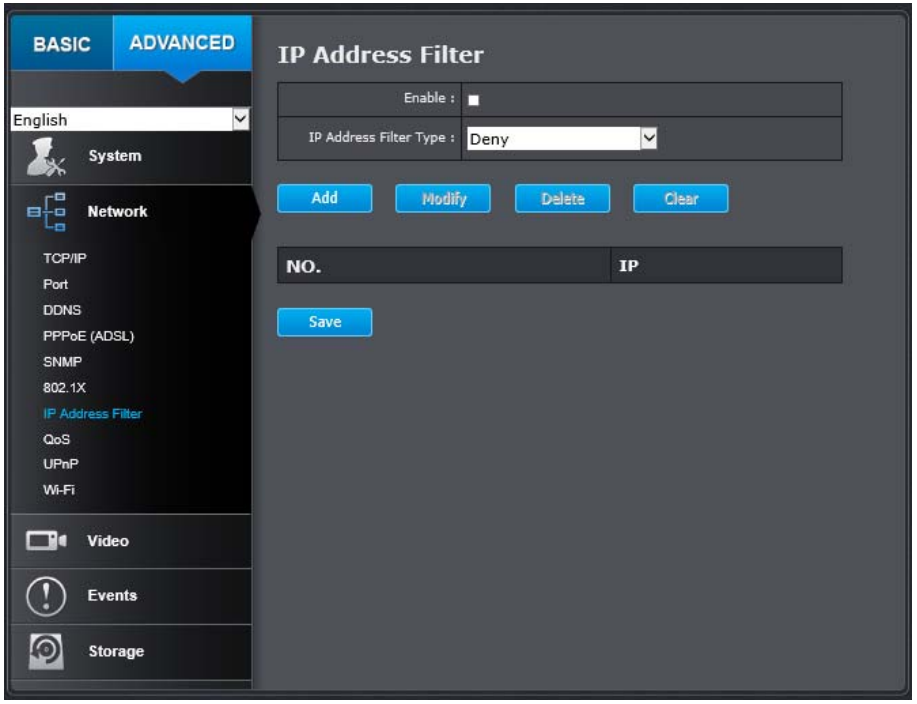
802.1X Authentication	
Enable IEEE 802.1X:	Check this box to enable 802.1X authentication service.

© Copyright 2017 TRENDnet. All Rights Reserved.

EAPOL version:	Extensible Authentication Protocol (EAP) over LAN (EAPoL). Choose version 1 or 2. This version number must matches to your 802.1X service EAPOL version.
User Name:	Enter the account name.
Password:	Enter the password.
Confirm:	Enter the password again.
Click **Save** to save the changes	

IP Address Filter

Set up a list of clients allow only the clients on the list to access this camera or to reject clients on the list from access this camera.

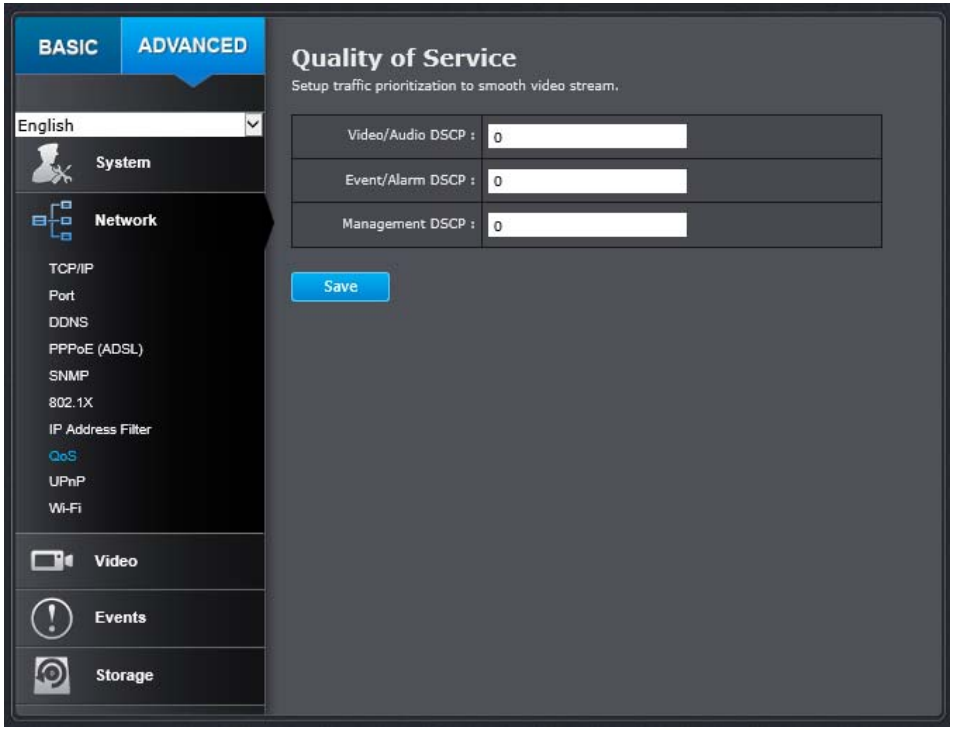


IP Address Filter	
Enable IP Address Filter:	Check this box to enable IP address filtering service.
IP Address Filter Type:	Choose **deny** to ban the listed IP addresses or **Allow** to allow listed host to access this camera.
Add:	Click **Add** to add a user account
Modify:	To modify an entry on the list, highlight the entry by clicking on it. Then, click the **Modify** button. Enter the IP address then click **OK**.
Delete:	To delete an entry on the list, highlight the entry by clicking on it. Then, click **Delete**.
Click **Save** to save the changes	

© Copyright 2017 TRENDnet. All Rights Reserved.

QoS (Quality of Service)

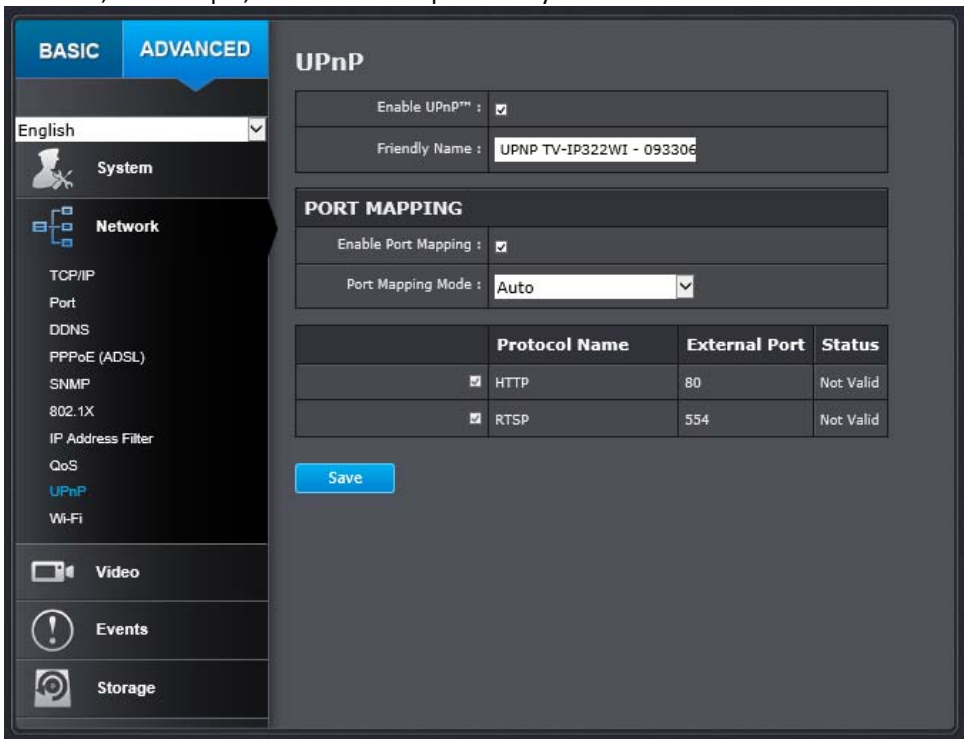
Setup traffic prioritization to help smooth out the video stream. You can set the Differentiated Services Code Point (DSCP) bits on outgoing data streams. The QoS capable network device will forward different data in different priorities. The meaning of the value is different in different DiffServ domains. Consult your network manager for the setup details.



QoS	
Video/Audio DSCP:	Enter Video/Audio DSCP. Default: 0.
Event/Alarm DSCP:	Enter Event/Alarm DSCP. Default: 0.
Management DSCP:	Enter Management DSCP. Default: 0.
Click **Save** to save the changes	

UPnP

Universal Plug-and-Play is a device discovery protocol set. It allows your camera to easily be found, for example, on a Windows operation system.



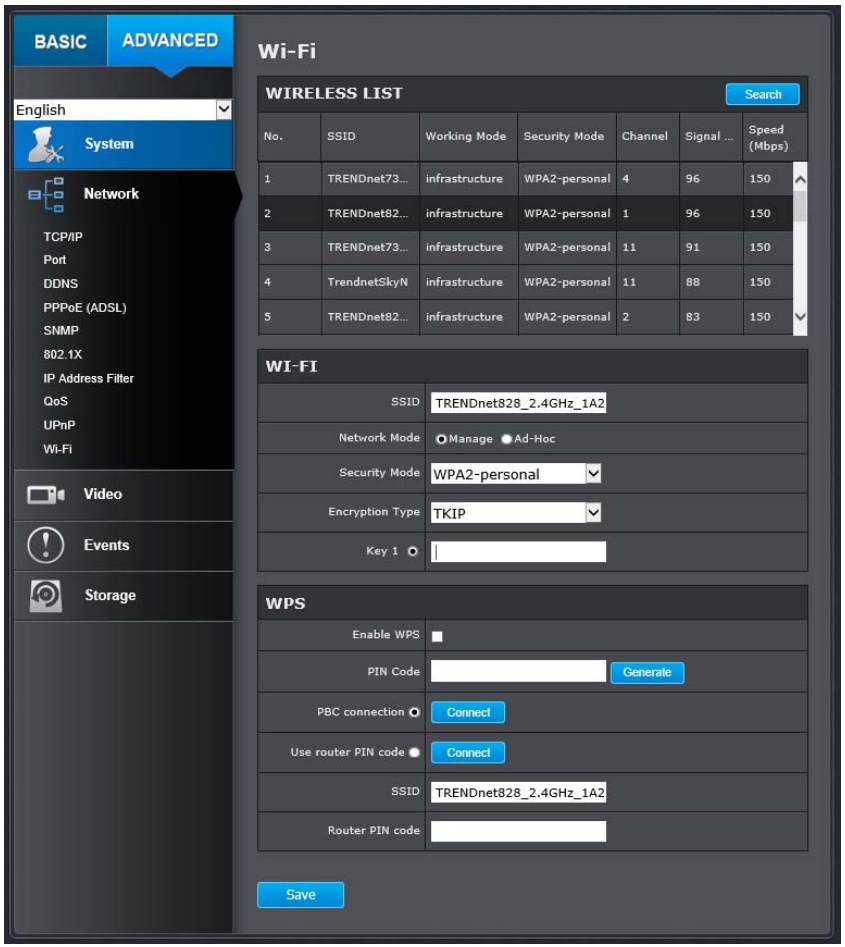
UPnP	
Enable UPnP:	Check this box to enable UPnP connection.
Friendly Name:	The name that will be appeared when searched.
Port Mapping	
Enable Port Mapping:	Check this box to enable UPnP connection.

© Copyright 2017 TRENDnet. All Rights Reserved.

Port Mapping Mode:	Choose Manual or Auto port mapping.
External Port:	Choose the port number for mapping.
Click **Save** to save the changes	

Wi-Fi

Connect the camera via wirelessly.



Wireless list	
Click **Search** button to search the wireless network	
No.	The sequential number of the wireless network.
SSID:	Display network name (SSID) in the same network
Working mode:	Display the SSID that using the infrastructure or ad-hoc encryption method
Security mode:	Display the wireless encryption type.
Channel	Display wireless channel.
Signal	Display the signal strength
Speed (mbps)	Display the maximum wireless connection speed
Wi-Fi	
SSID:	Display the selected SSID
Network Mode:	Select Manage or Ad-Hoc mode. The Manage mode will optimal the best solution for the SSID.
Security Mode:	Supports fiv security keys. WEP, WPA-PSK, WPA-Enterprise (Radius), WPA2-PSK, WPA2-Enterprise (Radius).
Encryption Type:	Select the encryption type that match to the router.
Key:	Enter the encryption key.
WPS	
Enable WPS:	Check this box to enable WPS
PIN Code:	Click **Generate** button to generate a pin code.
PBC Connection:	Using Push button configuration method to connect wireless network. Make sure your router has WPS button. Click **Connect** button, within two minutes, press the WPS button on the router to establish the wireless connection.

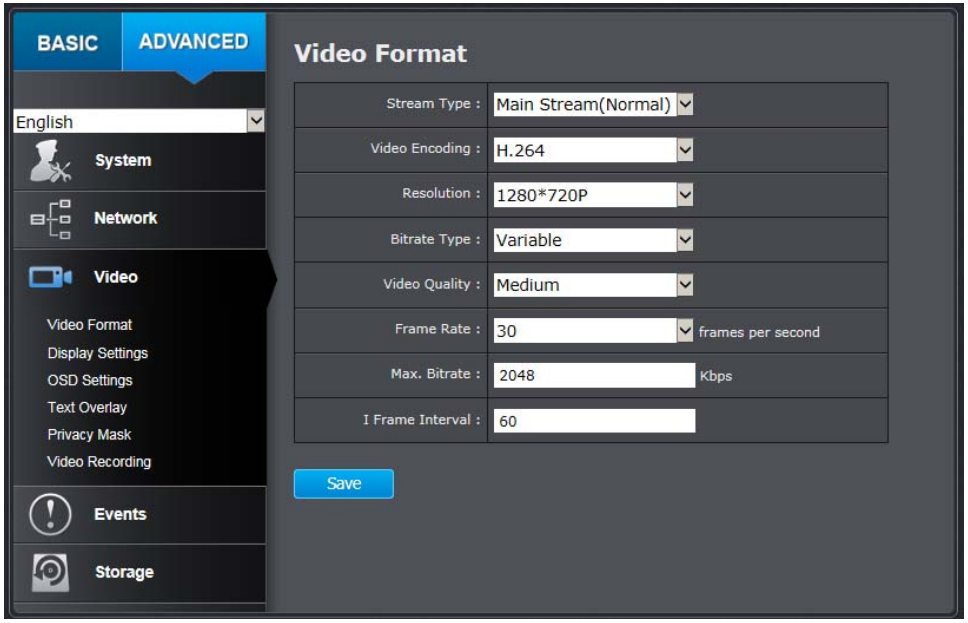
© Copyright 2017 TRENDnet. All Rights Reserved.

User router PIN code:	Select this method if the PIN code is generated from the router side. Eenter router's pin code and then click **Connect** button.
SSID:	If you have select the SSID from the list, the SSID will display here.
Router Pin Code:	Enter router's pin code here
Click **Save** to save the changes	

Video

Video Format

Adjust the format of video.



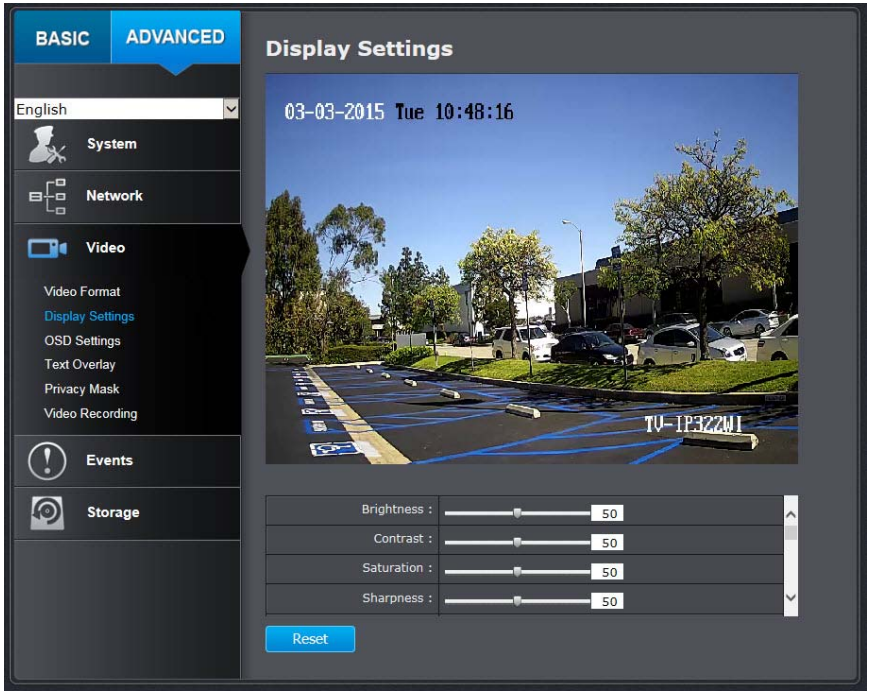
Video Format		
Stream Type:	Select Main Stream (Normal) or Sub Stream	
Video Encoding:	Choose the video stream you want to modify. Main stream supports H.264 only. Sub Stream supports H.264 and MJPEG.	
	Main Stream	Sub Stream
Resolution:	H.264 1280*960 640*480 704*480 1280*720P	H.264/MJPEG 320*240 352*240 640*480 704*480
Bitrate Type:	Choose between variable bit rate or constant bit rate for video compression. The default is variable rate. Variable Constant	
Video Quality:	Choose the video quality. The default is medium quality. Lowest Lower Low Medium Higher Highest	
Frame Rate:	Choose the capturing frame rate. The default value is 30 frames per second. Reduce the frame rate to reduce the capture file size.	

© Copyright 2017 TRENDnet. All Rights Reserved.

	30 1/16 1/8 1/4 1/2 1 2 4 6 8 10 12 15 16 18 20 22 25
Max. Bitrate:	Choose the maximum video sampling bit rate. Default: 2048
I Frame Interval	An I Frame is a frame that records a complete picture. Frames between I frames, (P frame or B frame) only records the image differences between two frames. Choose the I Frame Interval here. The default is 60.
Click **Save** to save the changes	

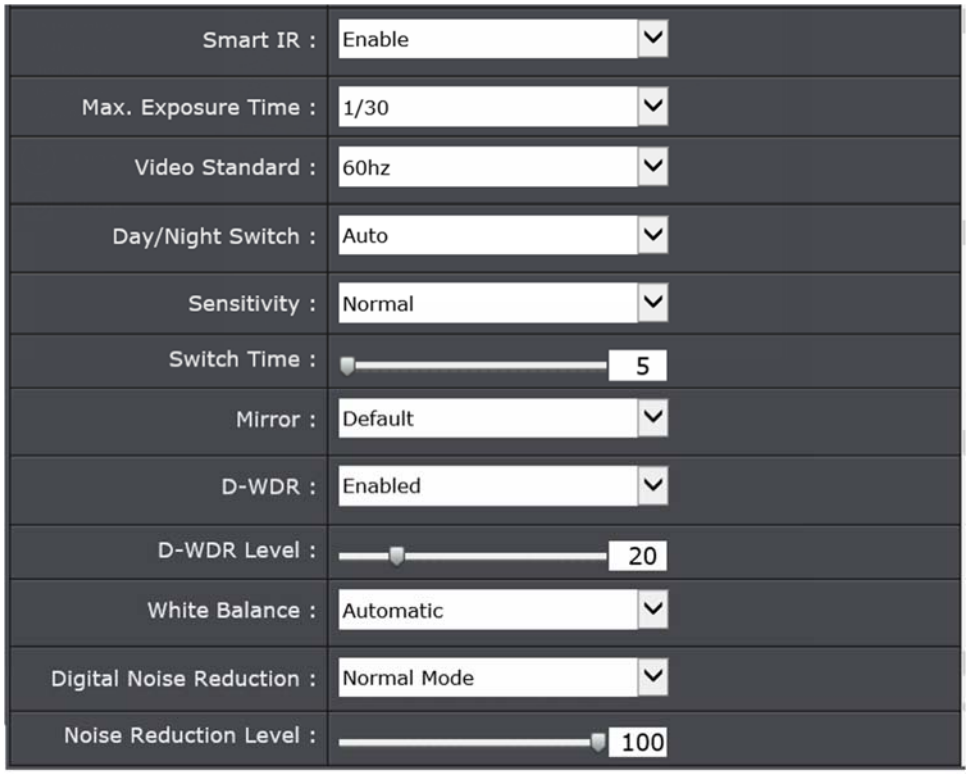
Display Settings

Adjust video image quality, lightness, and color settings here.

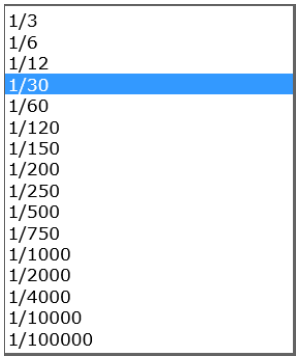


Display Settings	
Brightness:	Use the slider or enter a number (0-100) to adjust the image brightness. Default: 50
Contrast:	Use the slider or enter a number (0-100) to adjust the image contrast. Default: 50
Saturation:	Use the slider or enter a number (0-100) to adjust the color saturation. The greater number means the color will be more saturated. Default: 50
Sharpness:	Use the slider or enter a number (0-100) to adjust the image sharpness. Default: 50

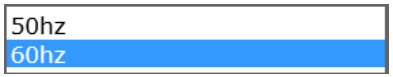
© Copyright 2017 TRENDnet. All Rights Reserved.



Display Settings	
Smart IR:	Smart IR can adjust the strength of infrared lights at night depending on the distance of an object to maintain the maximum IR light distance and while maintaining a clear picture when object is close by. Default: On.
Max. Exposure Time:	Adjust this value for exposure time for each picture. You can choose a value between 1/3 second to 1/100,000 second. The default value is 1/30 second exposure time for each picture.

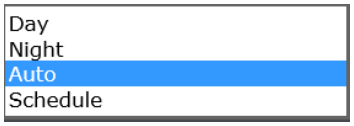
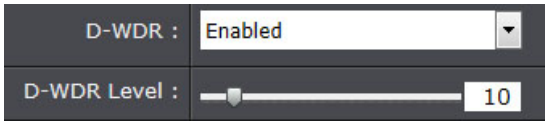
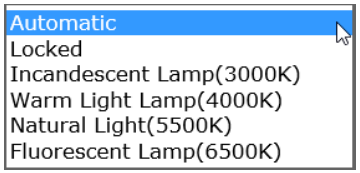


Video Standard:	This is the base frequency for the video refresh rate. It is recommended to set to the same frequency of your local video standard (NTSC: 60, PAL: 50). Default: 60Hz.



Day/Night Switch:	Choose whether you want the camera to be set to the day mode (color video) or night mode (IR enhanced black/white video). You can manually set it to day mode or night mode, adjust by lighting (**Auto**), or pre-define schedule. **Day**: The speed dome displays color image. It is used for normal lighting conditions. **Night**: The image will be black and white. **Night** mode can increase the sensitivity in low light conditions. **Auto:**

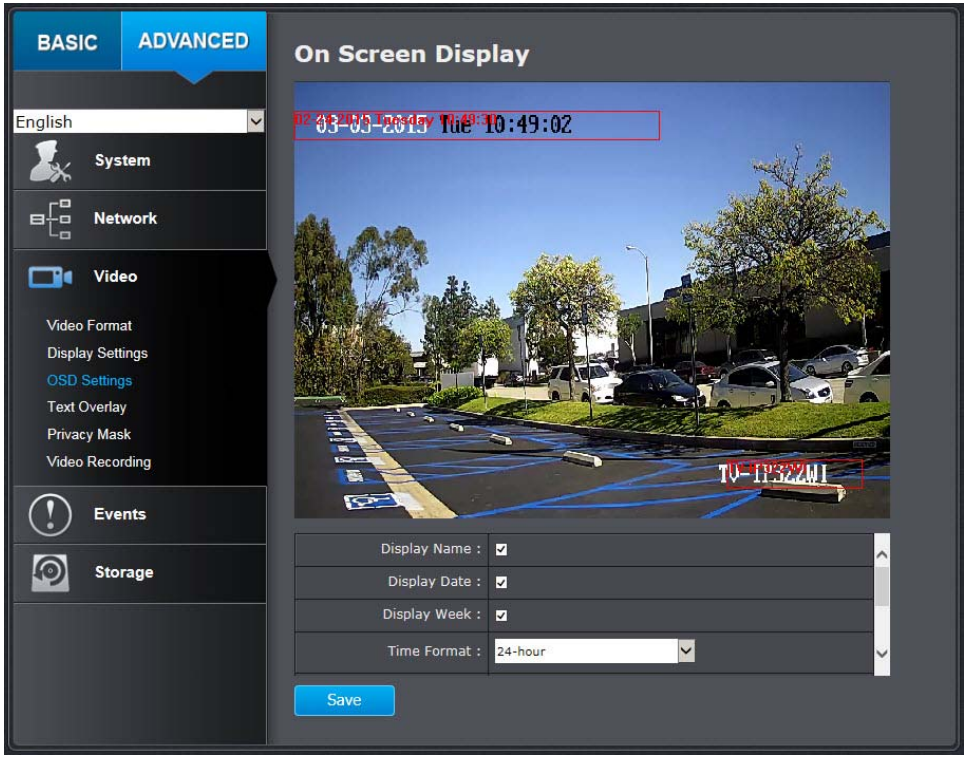
© Copyright 2017 TRENDnet. All Rights Reserved.

	In **Auto** mode, the day mode and night mode can switch automatically according to the light condition of environment. **Schedule:** Use quick selection or enter the time down below. Click **OK** to confirm the time you want to set. 
Sensitivity:	Adjust the light sensor sensitivity.
Switch Time:	The time delayed to switch between Day/Night modes. Longer switch time can prevent unnecessary mode flipping if an object is blocking the light source temporarily. Range: 5-120 seconds, default: 5 seconds.
Mirror:	Select from OFF or ON option to set the correct direction of the camera view.
D-WDR: **D-WDR Level**	This Digital Wide Dynamic Range feature helps to improve the image quality under limited light source. Higher value brings brighter images. 
White Balance:	Choose a corresponding light source to fit the environment. 
Digital Noise Reduction:	Enable or disable noise reduction.

Noise Reduction Level:	**Noise Reduction Level:** Adjust the effect of digital noise reduction. Range: 0-100%, default : 100%

On Screen Display (OSD) Settings

You can display the camera name and the time the video is shooting on the screen.



OSD Display

© Copyright 2017 TRENDnet. All Rights Reserved.

Display Name:	Check this box to display the product name that was setup in the device settings (refer to page 25 to change the device name.)
Display Date:	Check this box to display system time.
Display Week:	Check this box to display time of the week.
Time Format:	Select 12 or 24 hours' time format.
Data Format:	Select different date format.
Display Mode:	Select transparent/flashing format.
OSD Size:	Select different size format. (Auto, 16*16, 32*32, 48*48, 64*64)
Click **Save** to save the changes	

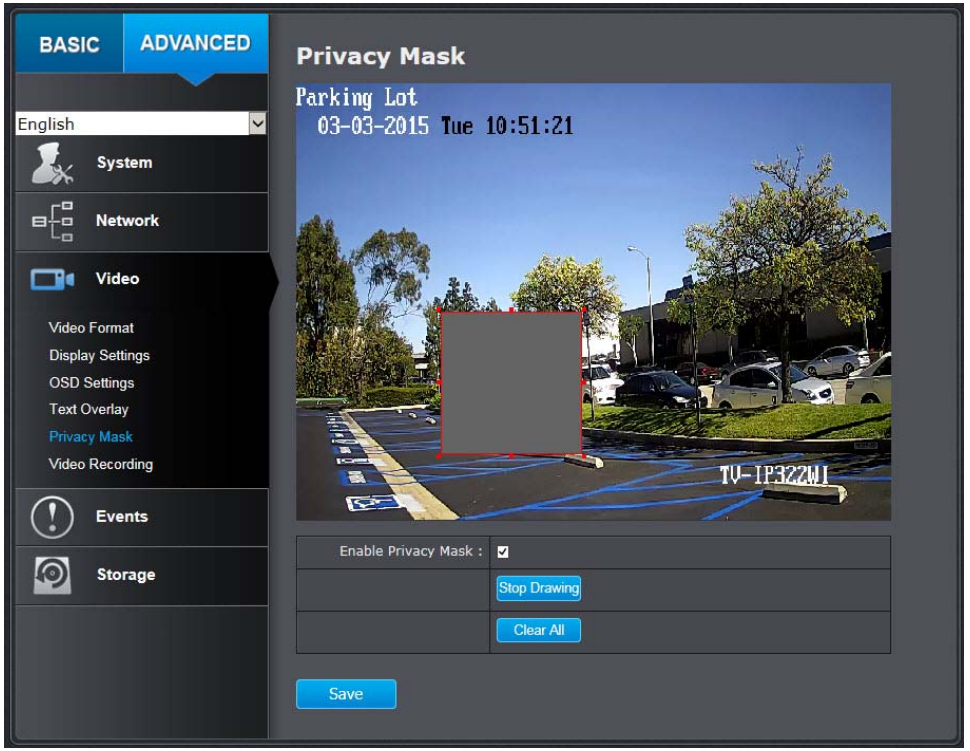
Text Overlay

Display extra information on the screen over the image.

Text Overlay	
Check Box:	Check this box to enable text overlay.
Text Field:	Enter the text you want to display. You can enter your local language if you want. The text field allows maximum 44 English letters or 20 non-English characters.
Click **Save** to save the changes	

Privacy Mask

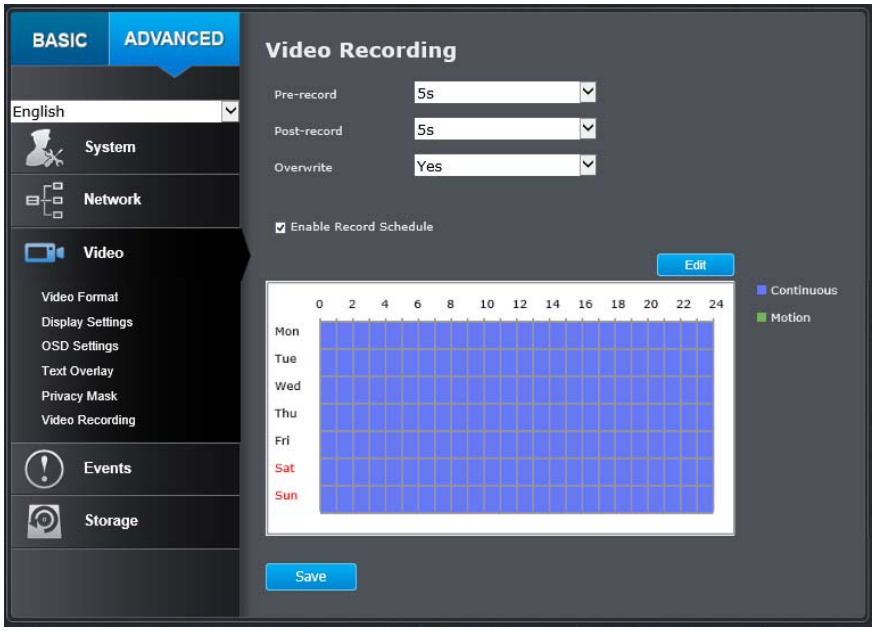
Create a masking area to keep your privacy. You can create up to four independent masking areas by clicking and dragging on the screen.



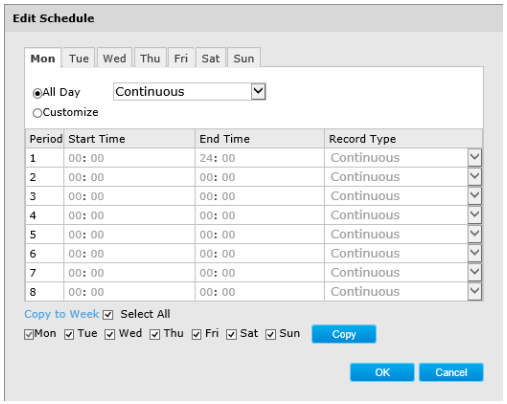
© Copyright 2017 TRENDnet. All Rights Reserved.

Privacy Mask	
Enable Privacy Mask:	Check this box to enable privacy masking.
Drawing Area:	Click this button to start drawing privacy area.
Stop Drawing:	Click this button to stop drawing.
Clear All:	Click this button to clear all the mask areas.
Click **Save** to save the changes	

Video Recording



Video Recording	
Pre-record:	Recording time before trigger event.
Post-record:	Recording time after trigger event.
Overwrite:	Select Yes to allow older recordings to be overwritten.

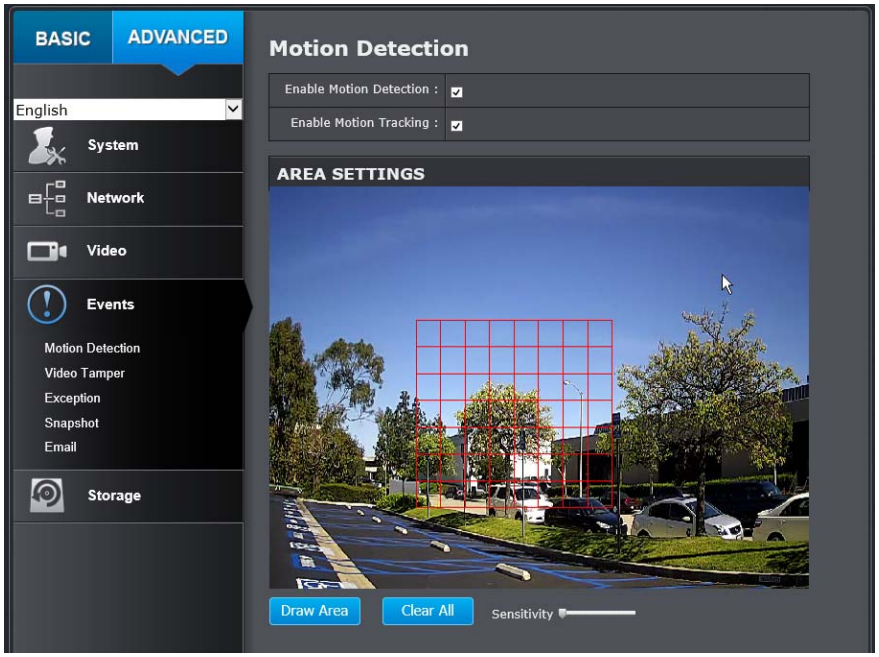
Enable Record Schedule:	Check this box and then click **Save** to enable video recording.
Edit:	Click **Edit** to edit the recording schedule.  1. Select day of the week you want to edit the schedule. 2. Select **All Day** or **Customized** schedule of the day. 3. Set the time period and the event you want to trigger the video recording **continuous** (always recording) or **motion detection**. 4. Click **Copy to Week** if you want the same daily schedule every day. Or, you can select other day of the week and click **Copy** to copy the schedule of the day to other days. 5. Click another day of the week by clicking on its tab to set the next schedule. Click **OK** when you have finished your settings.
Click **Save** to save the changes	

© Copyright 2017 TRENDnet. All Rights Reserved.

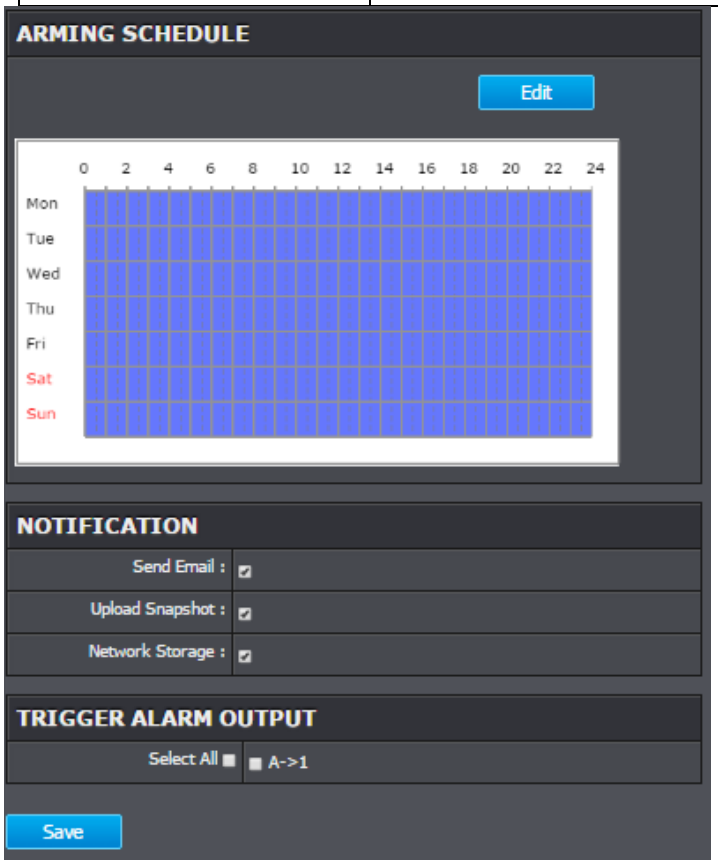
Event

Motion Detection

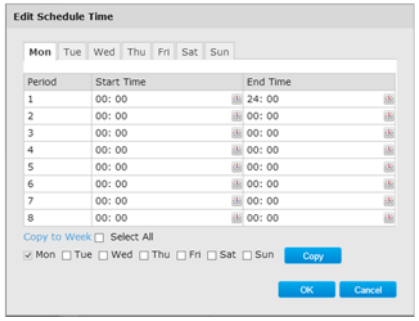
Set up how the motion detection event will be triggered and what actions will be triggered.



Motion Detection	
Enable Motion Detection:	Check this box to enable motion detection. Click **Save** to save the choice.
Enable Motion Tracking:	Check this box to enable motion tracking. Motion tracking is a dynamic display that shows the current status of motion detection. The motion tracking is displayed by a green grid. The grid area represents
	that the camera detects motion in this area. Click **Save** to save the choices.
Draw Area:	Click **Draw Area** button to start drawing. Click and drag on the area you want to set up the motion detection. You can draw up to 8 different areas. Click Stop Drawing to stop drawing motion detection areas. The red grids represent the detection area.
Sensitivity:	Move the slider to adjust detection sensitivity.
Clear All:	Click this button to clear all the set up areas.

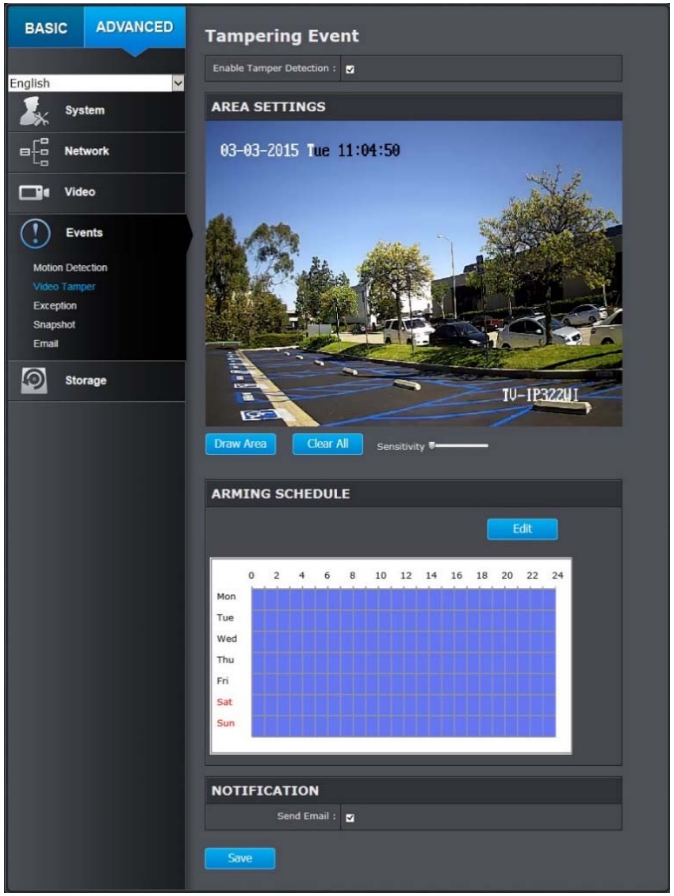


© Copyright 2017 TRENDnet. All Rights Reserved.

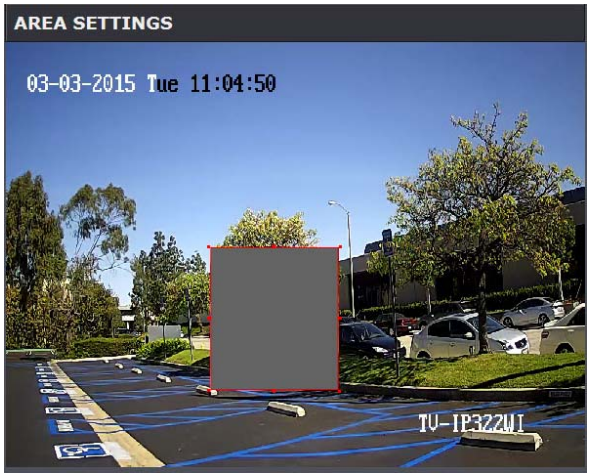
Arming Schedule	
Edit:	Click **Edit** to define when you want the motion detection works.  1. Select day of the week you want to edit the schedule. 2. Set the time period you want to enable motion detection. (Default is 0-24 hours, all day). 3. Click **Copy to Week** if you want the same daily schedule every day or you can select other day of the week and click **Copy** to copy the schedule of the day to other days. 4. Select another day of the week by clicking on its tab to set next schedule. Click **OK** when you finished your setting.
Notification	
Send Email:	Check this box to send an e-mail notification when motion is detected. Go to Events / Email to setup email account information.
Upload Snapshot:	Check this box to send snapshots to an FTP server or configured Network Storage when motion is detected. Go to Network Storage or FTP to setup server information
Network Storage	Check this box to send video clip to network storage when motion is detected. Go to **Storage** > **Network Storage** to setup Storage server information
Click **Save** to save the changes	

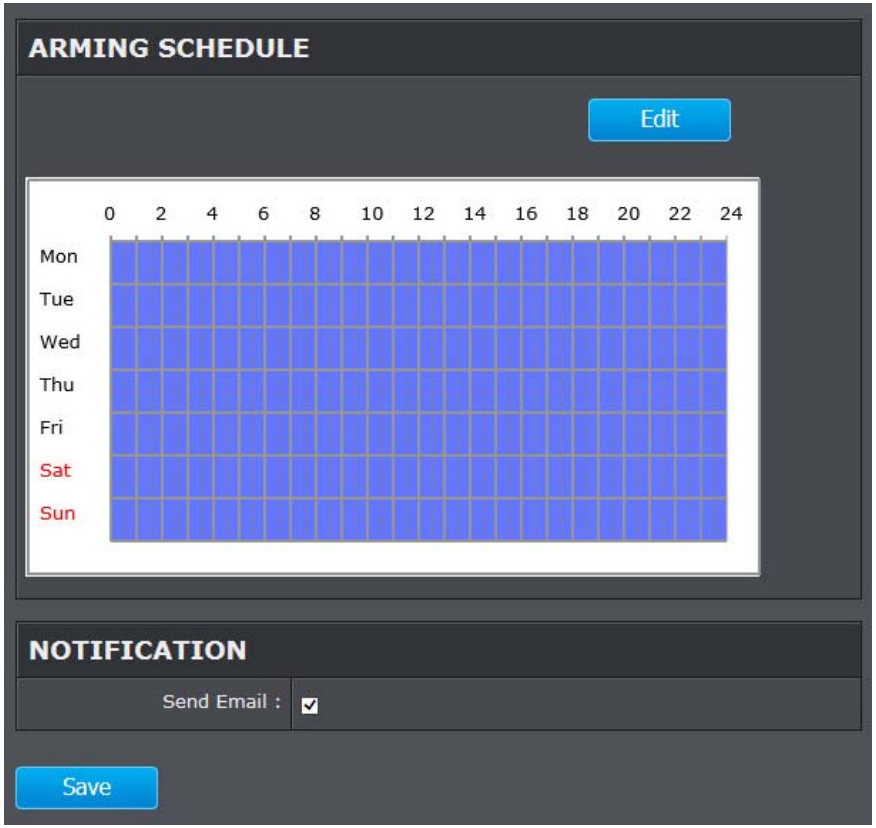
Video Tamper

This is to detect if the camera has been tampered with and surveillance is compromised. You can set up tamper proof notifications to alert the system manager to check the camera.



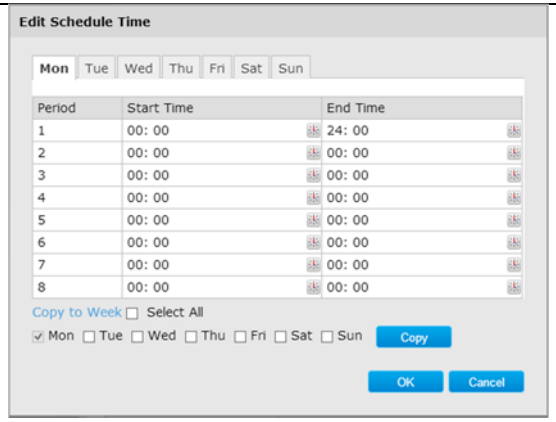
© Copyright 2017 TRENDnet. All Rights Reserved.

Tampering Event	
Enable Tamper Detection:	Check this box to enable tamper detection. Click **Save** to save the settings.
Draw Area:	Click **Draw Area** button to start drawing. Click and drag on the area you want to set up the tamper detection. You can setup only one area for tamper detection. Click Stop Drawing to stop drawing motion detection areas. The gray block represent the detection area. 
Sensitivity:	Move the slider to adjust detection sensitivity.
Clear All:	Click this button to clear all the set up areas.
Click **Save** to save the settings.	



Arming Schedule	
Edit:	Click **Edit** to define when you want the tamper detection works.

© Copyright 2017 TRENDnet. All Rights Reserved.

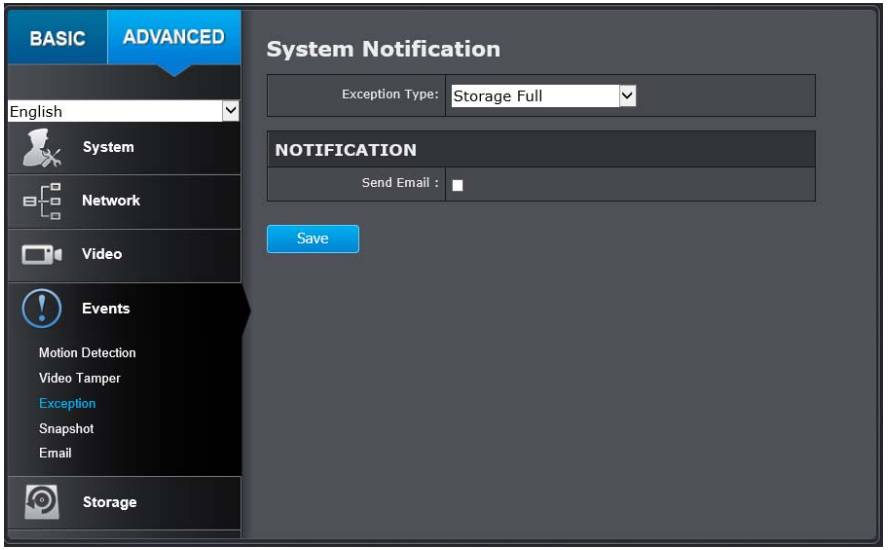


1. Select the day of the week you want to edit the schedule.
2. Set the time period you want to enable tamper detection. (Default is 0-24 hours, all day).
3. Click **Copy to Week** if you want the same daily schedule every day. Or, you can select other day of the week and click **Copy** to copy the schedule of the day to other days.
4. Select another day of the week by clicking on its tab to set the next schedule. Click **OK** when you have finished your settings.

Notification	
Send Email:	Check this box to send an e-mail notification when motion is detected. Go to Events / Email to setup email account information.
Click **Save** to save the changes	

Exception

Provides notifications for other system events, set up your notifications here.

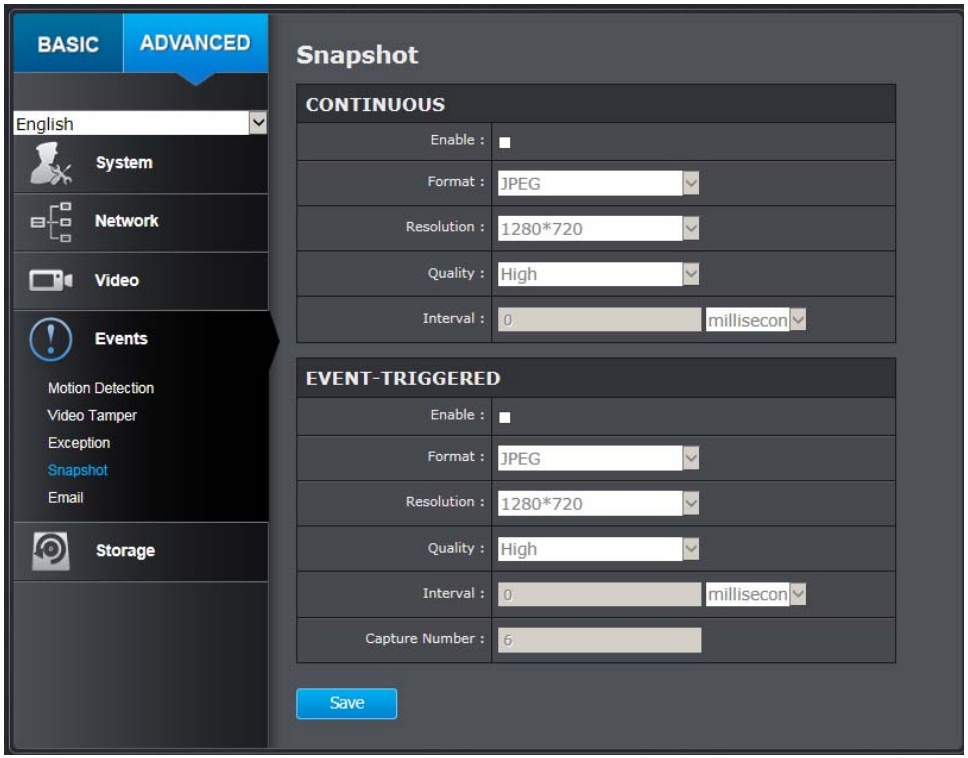


Notification	
Exception Type:	First choose the exception type, then choose the corresponding action.
Send Email:	Check this box to send an e-mail notification when motion is detected. Go to Events / Email to setup email account information.
Click **Save** to save the changes	

© Copyright 2017 TRENDnet. All Rights Reserved.

Snapshot

You can set up your camera to continuously take snapshots or take snapshots when an event happens.



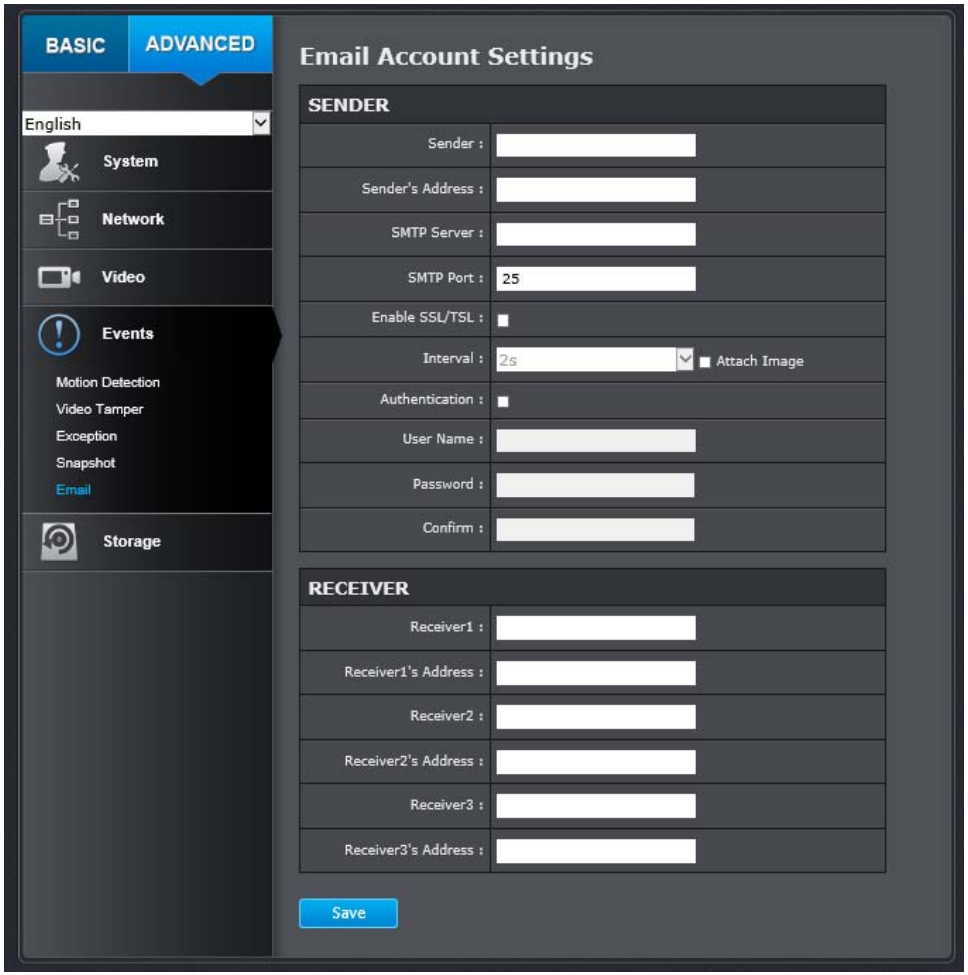
Continuous	
Enable:	Check this box to continuously take snapshots.
Format:	Save snapshots in JPEG format
Resolution:	Uses the same resolution set in **Video Format** for the snapshot resolution.
Quality:	Choose a compression quality for snapshots.
Interval:	State the time interval between snapshots. The default interval is 10 seconds.

Click **Save** to save the changes	
Event Triggered	
Enable:	Check this box to take snapshots when an event is occurred.
Format:	Save snapshots in JPEG format
Resolution:	Uses the same resolution set in **Video Format** for the snapshot resolution.
Quality:	Choose a compression quality for snapshot.
Interval:	State the time interval between this series of snapshots. The default interval is 1 second.
Capture Number:	State how many snapshots you want to take in a single triggered event. Default: 3 pictures.
Click **Save** to save the changes	

© Copyright 2017 TRENDnet. All Rights Reserved.

Email

Set up email accounts for notifications.



Sender	
Sender:	Enter the name to appear as the email sender.
Sender's Address:	Enter sender's email address.

SMTP Server:	Simple Mail Transportation Protocol Server address, the outgoing email server address. Please ask your email service provider for details.
SMTP Port:	Service port number for outgoing email.*
Enable SSL:	Check this box if your service provider requires a SSL secured connection.
Attach Image/Interval:	Check **Attach Image** if you want to send a snapshot image with the email notification and select the interval of snapshots in seconds.
Authentication:	Check this box if your server requires a password in order to send email. Most email servers require authentication when sending an email.
User name:	Enter the user name of outgoing email account
Password:	Enter the password
Confirm:	Enter the password again to confirm that the password was entered correctly.
Click **Save** to save the changes	
Receiver	
Receiver 1:	The first receiver's name.
Receiver 1's Address:	The first receiver's email address.
Receiver 2:	The second receiver's name.
Receiver 2's Address:	The second receiver's email address.
Receiver 3:	The third receiver's name.
Click **Save** to save the changes	

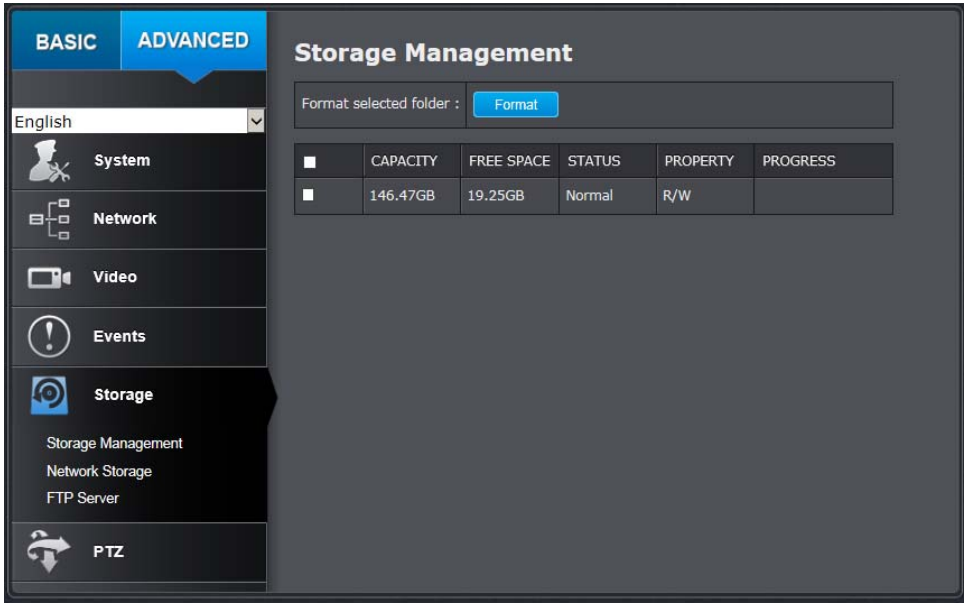
* Many ISPs do not allow service port 25 going through their network. Other popular ports are 587 and 465. Please consult your email service provider and ISP for details.

© Copyright 2017 TRENDnet. All Rights Reserved.

Storage

Storage Management

* Micro SD card or Network storage device must be setup / formatted before it can be managed / stored. Camera will save to SD card only when there is no additional NAS device setup.



SD Card Slot

Micro SD slot is located at the bottom of the camera under a protective cover. Using the included security wrench to loosen the screws and remove the panel. Insert a SD card into SD card slot. Put the protective cover back to camera.

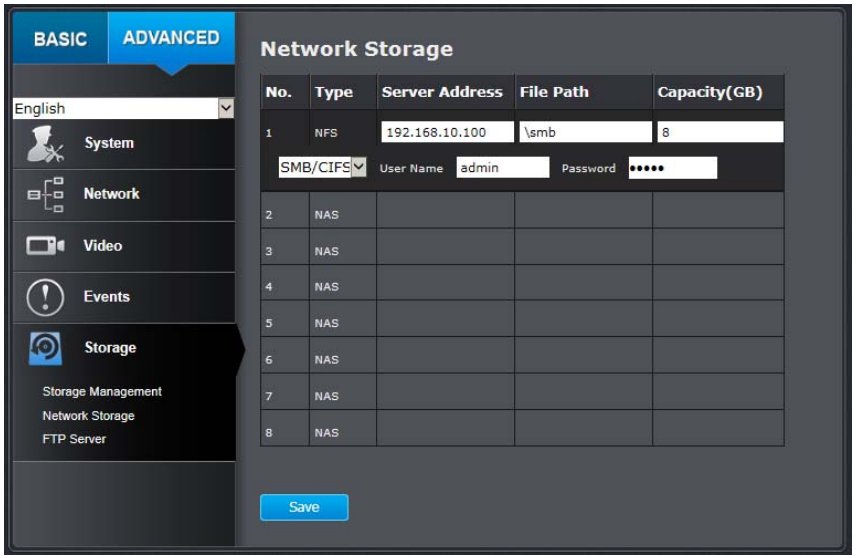
Network Storage

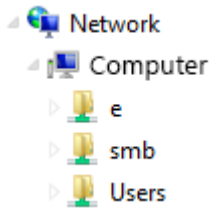
* **Network Storage** must be setup before it can be managed. For storage management, please refer to the next section.

The camera supports two formats of network storage file systems: NFS and SMB/CIFS. NFS, Network File System, is natively supported by Linux computers and most NAS, Network Attached Storage. SMB/CIFS, Common Internet File System, is natively supported by Windows® systems and now is generally supported by Linux and OS X®.

You can add up to 8 network storages for your camera. The recordings will subsequently be stored in these spaces. Save video from the first storage and then the next when the first one is full. Click on the entry to change the settings and click **Save** to save the settings.

© Copyright 2017 TRENDnet. All Rights Reserved.



Network Storage	
No:	The sequential number of the network storage.
Type:	The type of storage.
Server Address:	Enter the IP address of your network storage.
File Path:	Enter the file path on the server for network storage.
Capacity:	Enter the size of the disk space you want to assign for this storage. The minimum disk space requirement is 8GB. If you do not want to limit the size and use the full physical disk space, enter 0 in this field.
File System:	Choose between NFS or CIFS for file system. If you assign the network storage on a Windows® computer, set it to SMB/CIFS. (if you use an anonymous account, please still enter a random user ID and password before saving)
User Name:	Enter the user name if the network storage requires authentication. Leave it blank if no authentication is required.
Password:	Enter the password to access the network storage.
	**Tip:** To create network storage on your Windows® based system, create a shared folder and then test your set up with another computer. Enter the IP address of the computer here and enter the shared folder name with a leading forward slash. For example, if you have a shared folder named "SMB", enter "\SMB" in the **File Path**.
Click **Save** to save the changes	

FTP Server

FTP

© Copyright 2017 TRENDnet. All Rights Reserved.

Enable Snapshot to FTP:	Check this box if you want to store snapshots on the FTP.
Server Address:	Enter the FTP server IP address.
Port:	Enter the service port number of the FTP server.
User Name/Anonymous:	Check Anonymous if the FTP server does not require authentication. Enter the **User Name** if the FTP server requires authentication.
Password:	Enter the password of the FTP account.
Confirm:	Enter the password again to make sure the password was entered correctly.
Directory Structure:	When saving snapshots on an FTP server, they can be saved in a single place or organized with meaningful directory names. **Save in root directory:** You can choose to store all files in the same folder of FTP login. **Save in directory:** Structure your folders with camera name or IP address.
Directory:	**Use Camera Name:** Use the camera name to organize the saved files. **Use Camera IP:** Use the camera IP address to organize the saved files.
Click **Save** to save the changes	

© Copyright 2017 TRENDnet. All Rights Reserved.

Troubleshooting

1. **The camera can't be accessed or access is slow**

   There might be a problem with the network cable. To confirm that the cables are working, ping the address of a known device on the network. If the cabling is OK and your network is reachable, you should receive a reply similar to the following (…bytes = 32 time = 2 ms).

   Another possible problem may be that the network device such as a hub or switch utilized by the Network Camera is not functioning properly. Please confirm the power for the devices are well connected and functioning properly.

2. **The camera can be accessed locally but not remotely**

   This might be caused by a firewall. Check the Internet firewall with your system administrator. The firewall may need to have some settings changed in order for the Network Camera to be accessible outside your local LAN. For more information, please refer to the section about installing your camera behind a router.

   Make sure that the Network Camera isn't conflicting with any Web server you may have running on your network.

   The default router setting might be a possible reason. Check that the configuration of the router settings allow the Network Camera to be accessed outside your local LAN.

3. **White vertical lines appear on the image from the camera**

   It could be that the CMOS sensor (a square panel situated behind the lens that measures the light signals and changes it into a digital format so your computer can present it into an image that you are familiar with) has become overloaded when it has been exposed to bright lights such as direct exposure to sunlight or halogen lights. Reposition the Network Camera into a more shaded area immediately as prolonged exposure to bright lights will damage the CMOS sensor.

4. **The camera images are 'noisy'**

   Often if the camera is in a low-light environment, the images can contain a lot of noise. Try enabling Night mode and see if that improves the image quality. Otherwise, try to use the camera in a location where there is a bit more light source.

5. **Video can't be viewed through the web browser interface.**

   ActiveX might be disabled. If you are viewing the images from Internet Explorer make sure ActiveX has been enabled in the Internet Options menu. You may also need to change the security settings on your browser to allow the ActiveX plug-in to be installed.

   If you are using Internet Explorer with a version number lower than 6, then you will need to upgrade your Web browser software in order to view the streaming video transmitted by the Network Camera. Try also viewing the video using Java. Ensure that you have the latest version of Java installed before you do. Go to www.java.com for more information.

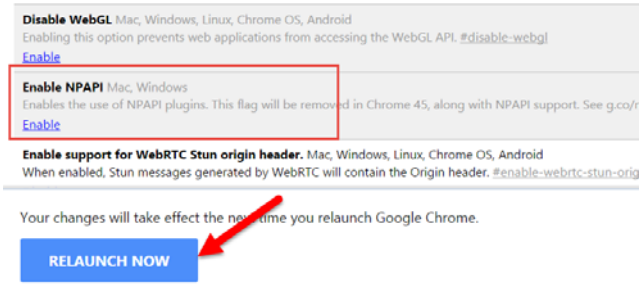
6. **How to hardware reset the camera to factory default setting?**

   The reset button is located at the bottom of the camera under a protective cover. Using the included security wrench to loosen the screws and remove the panel. Press and hold the reset button and connected the power adapter to the camera; continue hold the reset button for 10 seconds then release it. Wait for 60 seconds for camera to boot up. The camera will restore to factory default setting. You can also do factory reset via Web GUI under **Advance Setting >> System >> Maintenance.**

© Copyright 2017 TRENDnet. All Rights Reserved.

7. The camera plugins does not work with Chrome.

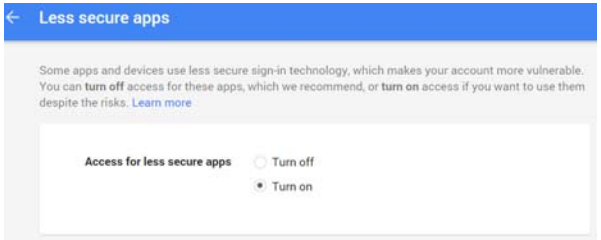
Due to security updates, Chrome might block the NPAPI plugin, which prevents live view from the camera. To temporarily enable the NPAPI plugin, open Chrome and in the address bar enter **chrome://flags**. Scroll down the page and look for the "**Enable NPAPI"** flag and click **Enable**. And in the left corner of the page, click "**RELAUNCH NOW**".



8. The camera isn't sending email notifications from my gmail account.

Google's security settings may prevent the TV-IP312PI from accessing your gmail account to send notifications. To change the security settings, log into your account, then click on your account settings. Under the **Signing in** section, locate the **Access for less secure apps** setting, and click on it. Under the options, select **Turn on**. This should allow the camera to send notifications from your gmail account.

Note: Due to security updates, some features may not function properly. Please check our website at www.trendnet.com/support for the latest firmware.



© Copyright 2017 TRENDnet. All Rights Reserved.

Federal Communication Commission Interference Statement

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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code selection feature to be disabled for products marketed to the US/CANADA

Industry Canada Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

© Copyright 2017 TRENDnet. All Rights Reserved.

Europe – EU Declaration of Conformity

TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.

Safety
EN60950-1 : 2006 + A11 : 2009 + A1: 2010 + A12: 2011+ A2: 2013

EMC
EN 301 489-1 V1.9.2: 09-2011
EN 301 489-17 V2.2.1: 09-2012
EN 55022: 2010+ AC 2011
EN 55024: 2010

Radio Spectrum & Health
EN 300 328 V1.8.1: 06-2012 Class B
EN 62311: 2008

Energy Efficiency
Regulation (CE) No. 278/2009

This product is herewith confirmed to comply with the Directives.

Directives

Low Voltage Directive 2006/95/EC

EMC Directive 2004/108/EC

R&TTE Directive 1999/5/EC

EMF Directive 1999/519/EC

Ecodesign Directive 2009/125/EC

RoHS Directive 2011/65/EU

REACH Regulation (EC) No. 1907/2006

This device is a 2.4GHz Wideband transmission system (transceiver), intended for use in all EU member state and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

This device is designed to provide uninterrupted monitoring and/or recording. This device does not offer power management functionality such as Off mode or Standby mode or network standby mode.

© Copyright 2017 TRENDnet. All Rights Reserved.

cs Česky [Czech]	TRENDnet tímto prohlašuje, že tento TV-IP322WI je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES, 2006/95/ES, a 2009/125/ES.
da Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TV-IP322WI overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF, 2006/95/EF, og 2009/125/EF.
de Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät TV-IP322WI in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG, 2006/95/EG und 2009/125/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TV-IP322WI vastavust direktiivi 1999/5/EÜ, 2006/95/EÜ ja 2009/125/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, TRENDnet, declares that this TV-IP322WI is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC, 2006/95/EC, and 2009/125/EC.
es Español [Spanish]	Por medio de la presente TRENDnet declara que el TV-IP322WI cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE, 2006/95/CE, 2009/125/CE y.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑTRENDnet ΔΗΛΩΝΕΙ ΟΤΙ TV-IP322WI ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ, 2006/95/ΕΚ, 2009/125/ΕΚ και.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil TV-IP322WI est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE, 2006/95/CE, 2009/125/CE et.
it Italiano[Italian]	Con la presente TRENDnet dichiara che questo TV-IP322WI è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE, 2006/95/CE e 2009/125/CE.
Latviski [Latvian]	AršoTRENDnetdeklarē, ka TV-IP322WI atbilstDirektīvas 1999/5/EK, 2006/95/EK, un 2009/125/EK būtiskajāmprasībām un citiemar to saistītajiemnoteikumiem.
Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TV-IP322WI atitinka esminius reikalavimus ir kitas 1999/5/EB, 2006/95/EB ir 2009/125/EB Direktyvos nuostatas.
nl Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TV-IP322WI in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG, 2006/95/EG, en 2009/125/EG.
mt Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TV-IP322WI jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/KE, 2006/95/KE, u 2009/125/KE.
hu Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TV-IP322WI megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EK irányelv, a 2006/95/EK és a 2009/125/EK irányelv egyéb elõírásainak.
pl Polski [Polish]	Niniejszym TRENDnet oświadcza, że TV-IP322WI jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/WE, 2006/95/WE i 2009/125/WE.
pt Português [Portuguese]	TRENDnet declara que este TV-IP322WI está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE, 2006/95/CE e 2009/125/CE.
sl Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TV-IP322WI v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES, 2006/95/ES in 2009/125/ES.
Slovensky [Slovak]	TRENDnettýmtovyhlasuje, že TV-IP322WI spĺňazákladnépožiadavky a všetkypríslušnéustanoveniaSmernice 1999/5/ES, 2006/95/ES, a 2009/125/ES.
fi Suomi [Finnish]	TRENDnet vakuuttaa täten että TV-IP322WI tyyppinen laite on direktiivin 1999/5/EY, 2006/95/EY ja 2009/125/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
sv Svenska [Swedish]	Härmed intygar TRENDnet att denna TV-IP322WI står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG, 2006/95/EG och 2009/125/EG.

© Copyright 2017 TRENDnet. All Rights Reserved.

Limited Warranty

TRENDnet warrants only to the original purchaser of this product from a TRENDnet authorized reseller or distributor that this product will be free from defects in material and workmanship under normal use and service. This limited warranty is non-transferable and does not apply to any purchaser who bought the product from a reseller or distributor not authorized by TRENDnet, including but not limited to purchases from Internet auction sites.

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service. Specific warranty periods are listed on each of the respective product pages on the TRENDnet website.

- AC/DC Power Adapter, Cooling Fan, and Power Supply carry a one-year warranty.

Limited Lifetime Warranty

TRENDnet offers a limited lifetime warranty for all of its metal-enclosed network switches that have been purchased in the United States/Canada on or after 1/1/2015.

- Cooling fan and internal power supply carry a one-year warranty

To obtain an RMA, the ORIGINAL PURCHASER must show Proof of Purchase and return the unit to the address provided. The customer is responsible for any shipping-related costs that may occur. Replacement goods will be shipped back to the customer at TRENDnet's expense.

Upon receiving the RMA unit, TRENDnet may repair the unit using refurbished parts. In the event that the RMA unit needs to be replaced, TRENDnet may replace it with a refurbished product of the same or comparable model.

In the event that, after evaluation, TRENDnet cannot replace the defective product or there is no comparable model available, we will refund the depreciated value of the product.

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of-purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use, or (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation, a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. International customers

© Copyright 2017 TRENDnet. All Rights Reserved.

shipping from outside of the USA and Canada are responsible for any return shipping and/or customs charges, including but not limited to, duty, tax, and other fees.

Refurbished product: Refurbished products carry a 90-day warranty after date of purchase. Please retain the dated sales receipt with purchase price clearly visible as evidence of the original purchaser's date of purchase. Replacement products may be refurbished or contain refurbished materials. If TRENDnet, by its sole determination, is unable to replace the defective product, we will offer a refund for the depreciated value of the product.

WARRANTIES EXCLUSIVE: IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACE. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, OR USE OF TRENDNET'S PRODUCTS.

TRENDNET SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR OR MODIFY, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW, TRENDNET ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDNET'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

Some TRENDnet products include software code written by third party developers. These codes are subject to the GNU General Public License ("GPL") or GNU Lesser General Public License ("LGPL").

Visit http://www.trendnet.com/gpl or the support section on http://www.trendnet.com and search for the desired TRENDnet product to access to the GPL Code or LGPL Code. These codes are distributed WITHOUT WARRANTY and are subject to the copyrights of the developers. TRENDnet does not provide technical support for these codes. Please visit http://www.gnu.org/licenses/gpl.txt or http://www.gnu.org/licenses/lgpl.txt for specific terms of each license.

1.26.17 TV-IP322WI V1.1R

© Copyright 2017 TRENDnet. All Rights Reserved.

TRENDnet®

Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at http://www.trendnet.com/register

TRENDnet
20675 Manhattan Place
Torrance, CA 90501. USA

Copyright ©2017. All Rights Reserved. TRENDnet.