FOR A GOOD **REASON GRUNDIG**

Owner's Manual



IP Cameras & Domes

GCI-K1812W	2 Megapixel Full HD Flat Fixed Dome IP-Camera 4mm Soft D/N

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1. Introduction

Following the high standards of GRUNDIG IP Cameras, this IP Camera is capable of serving real-time streaming and makes the images run smoothly (25 images/second).

In addition to MJPEG real time streaming, this IP Camera develops a superior H.264 main profile codec to smoothly transfer High Definition surveillance data through the Internet without distortion. Attributing to the IP Camera's flexible platform, the camera can be applied in various installation locations including shops, stores, banks, parking lots, factories and building surveillance.

With the Power over the Ethernet (IEEE 802.3af) feature, the need of power outlets could be totally eliminated. Likewise installation and cabling cost can be significantly reduced. Additionally, its light weight and compact size offer a quick and simple installation on ceilings or walls of houses and vehicles.

2. Important Safety Instructions

Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product. Incorrectly connecting the power supply may cause explosion, fire, electric shock, or damage to the product. Do not connect multiple products to one single adapter. Exceeding the capacity may cause abnormal heat generation or fire.

Do not place conductive objects (e.g. screwdrivers, coins or any metal items) or containers filled with water on top of the product. Doing so may cause personal injury due to fire, electric shock, or falling objects.

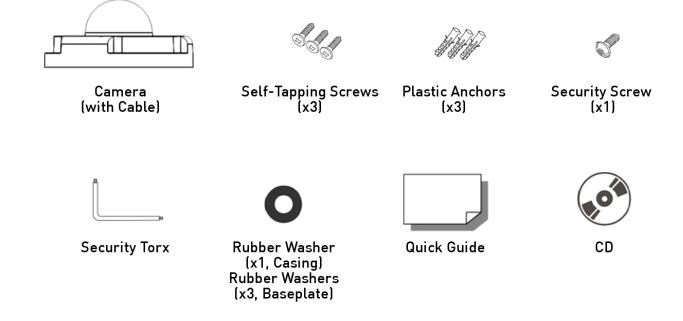
If any unusual smells or smoke comes out of the unit, stop using the product. In this case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.

If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (GRUNDIG is not liable for problems caused by unauthorised modifications or attempted repair.)

To prevent fire or electric shock, do not expose the inside of this device to rain or moisture.

3. Package Contents

These parts are included:



4. Installation

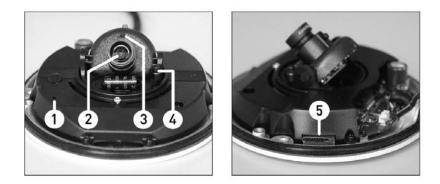
Do not install the product in a location subject to high temperature (over 50°C), low temperature (below -10°C), or high humidity. Doing so may cause fire or electric shock. Keep out of direct sunlight and heat radiation sources. This may cause fire. Avoid aiming the camera directly towards extremely bright objects such as the sun, as this may damage the image sensor.

Do not install the unit in humid, dusty or sooty locations. Doing so may cause fire or electric shock. Install it in a place with good ventilation.

When installing the unit, fasten it securely and firmly. A falling unit may cause personal injury.

If you want to relocate the already installed product, be sure to turn the power off and then move or reinstall it.

4.1. Camera Overview



Designation		Description				
1	Reset Button	Restore to default setting; press the button with a proper tool				
2	Lens	Rotate the lens to the right or left to adjust the focus				
3	Fixed Focus Screw	Loosen the screw to adjust the lens				
4	Fixed Tilt Screw	Loosen the screw to adjust the tilt angle				
5	Micro SD Card Slot	For Micro SD Card recording				

4.2. System Requirements

To perform the IP Camera via web browser, please ensure your PC is in good network connection, and meets the system requirements as described below.

Personal Computer : 1.) Intel Pentium M, 2.16 GHz or Intel Core 2 Duo, 2.0 GHz

2.) 2 GB RAM or more Operating System :

Windows XP / Windows VISTA / Windows 7

Web Browser : Microsoft Internet Explorer 6.0 or later Firefox Chrome Safari

Network Card : 10Base-T (10 Mbps) or 100Base-TX (100 Mbps) operation

Viewer : ActiveX control plug-in for Microsoft IE

4.3. Ethernet Connection

For waterproofing the RJ-45 Dongle please use a corresponding Screw-On Plug (not included in the package). Please refer to the instructions for the Screw-on Plug to waterproof the connection correctly.



RJ-45 Dongle

4.4. Installation and Connection

To make sure that the camera is waterproof, please follow the following installation procedure:

Step 1: Please refer to 4.3. Ethernet Installation to connect the cable.

Step 2: Put the Rubber Washers into the holes that are located on both sides of the Bottom Plate of the Camera.



Step 3: Aim the installation holes at the target installation position and fasten the screws to attach the Camera to the ceiling.



NOTE: The supplied self-tapping screws are mainly for softer substrate/material installation, such as wood. For other installation environments such as a cement wall, it is required to pre-drill and to put the plastic anchors into the holes before fastening the supplied self-tapping screw to the wall.

Step 4: Please refer to 4.1. Camera Overview to adjust the lens.

Step 5: Aim the arch parts on both Dome Cover and Bottom Plate to attach the two parts firmly together. And then fasten the security screws on the Dome Cover to finish the installation of the Camera.

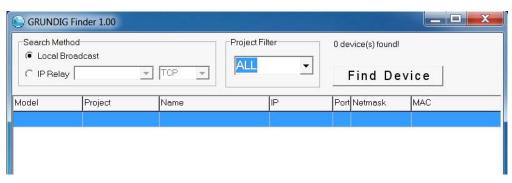
5. Accessing the Camera

For initial access to the IP Camera, users can search the camera through the installer program: GRUNDIG Finder.exe, which can be found on the supplied CD.

GRUNDIG Finder Software Setup :

Step 1: Double-click on the program GRUNDIG Finder.exe (see the desktop icon below). Its window will appear as shown below. Then click on the "Find Device" button.





Step 2: The security alert window will pop up. Click "Unblock" to continue.



Device Search :

Step 3: Click "Find Device" again, afterwards all IP devices found will be listed on the page, as shown in the picture below. The IP Camera's default IP address is: 192.168.1.1.

S GRUNDIG Fir	nder 1.00					
Search Method		Project Fil	ter	1 de	vice(s) found!	
C IP Relay	*		•		Find Dev	vice
Model	Project	Name	IP	Port	Netmask	MAC
GCI-H0503B	GCI-H0503B	MegaPixelCamera	192.168.1.1	80	255.255.255.0	B8:41:5F:01:AD:B4

Step 4: Double-click or right-click and select "Browse" to access the camera directly via the web browser.

SRUNDIG Finder	r 1.00						
Search Method C Local Broadcas C IP Relay	TCP	Project Fil	ter	1 device(s) foun		ce	
Model	Project	Name		IP	Port	Netmask	MAC
GC1+H0602B	GC1 H0602B	MegaPixelCamera	Detail info. Browse Network se	tup	80	255 255 265 0	00 D 0 83 06 B 3 CF

Step 5: Then the dialogue box for entering the default user name and password (as shown below) will appear for login to the IP Dome Camera.

7	G St
MegapixelIPCam User name:	era
Password:	Remember my password
	OK Cancel

The default login ID and password for the Administrator are:

Login ID: admin Password: 1234

NOTE: ID and password are case sensitive.

It is strongly advised to alter the administrator's password due to security concerns. Please refer to section 9.2. Security for further details.

Additionally, users can change the IP Camera's network property, either to DHCP or Static IP, directly in the device finding list. Please refer to the following section for changing the IP Camera's network property.

Example of changing the network property of the IP Camera :

Users can directly change an IP Camera's network property, e.g. from static IP to DHCP, in the finding device list. The procedure to change the IP Camera's network property is explained below:

Step 1: In the finding device list, click on the IP Camera of which you would like to change the network property. Right-click on the selected item, and select "Network Setup". Meanwhile, record the IP Camera's MAC address for future identification.

Search Methoo C Local Broa C IP Relay		P -	Filter	1 device(s) four Find		ice	
Model	Project	Name		IP	Port	Netmask	MAC
GCI-H0602B	GCI-H0602B	MegaPixelCamera	Detail info Browse	19216811	80	255.255.255.0	00:D0:89:06:B3:CF
			Network se	etup			

Step 2: The "Network Setup" page will come out. Select "DHCP," and click on the "Apply" button at the bottom of the page.

GRUNDIG Finde	r 1.00				-					×
Search Method C Local Broadcas C IP Relay	st TCP	*	Project Filter	•	1 device(: ⊏ : ⊧	- - -	evi	ice		
Model GCI+H06028	Project GCI-H0602B	Name MegaF	Project Name	Imation GCI-H060 MegaPixe [00:D0:89: Operty C St. ess [192.1	28 28 Camera D6:B3:CF		-	Netmask 255 255 255 0	MAC 00:D0 89:06 83:CF	
				ask 255.2 NS 0.0.0	55.255.0 0 Close	-				

Step 3: Click on "OK" in the Note of setting the change. Wait for one minute to search again for the IP Camera.

Note	X
Control package sent. Please try to re-search the device afte	r one minute.
	ОК

Step 4: Click on the "Find Device" button to search all the devices. Then select the IP Camera with the correct MAC address. After double-clicking on the IP Camera, the login window will appear.

S GRUNDIG Fir	nder 1.00					
Search Method	lcast	Project Fil	Iter	1 de	vice(s) found!	
C IP Relay	v		•		Find Dev	ice
Model	Project	Name	IP	Port	Netmask	MAC
GCI-H0503B	GCI-H0503B	MegaPixelCamera	192.168.44.221	80	255.255.255.0	B8:41:5F:01:AD:B4

Step 5: Enter User name and Password to access the IP Camera.

Installing the GRUNDIG Viewer Software Online :

For initial access to the IP Camera, a client program, GRUNDIG Viewer, will be automatically installed to your PC when connecting to the IP Camera.

If the Web browser does not allow the GRUNDIG Viewer installation, please check the Internet security settings or ActiveX controls and plug-ins settings (see 14. Internet Security Settings) to continue the process.

The Information Bar (just below the URL bar) may come out and ask for permission to install the ActiveX Control for displaying video in browser (see the picture below). Right-click on the Information Bar and select "Install ActiveX Control..." to allow the installation.

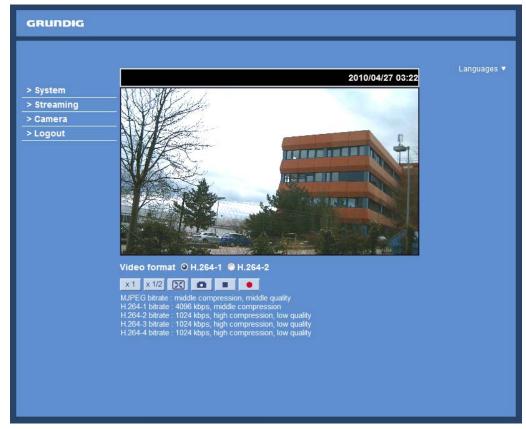


Then the security warning window will pop up. Click "Install" to carry on with the software installation.

Click on "Finish" to close the GRUNDIG Viewer window when download is finished. For detailed software download procedure, please refer to chapter 15. GRUNDIG Viewer Download Procedure.

NOTE: If the Live Video Pane on the Home Page cannot be shown to the users who have installed the GRUNDIG Viewer on the PC previously, please refer to the procedure in chapter 17. Delete the Existing GRUNDIG Viewer.

Once logged in to the IP Camera, users will see the Home page as shown below:



Administrator/User Privileges :

"Administrator" represents the person who can configure the IP Camera and who authorises users to have access to the camera; "User" refers to someone who has access to the camera with limited authority, i.e. to enter the Home and Camera setting pages.

Image and Focus Adjustment :

Adjust zoom and focus of the lens as necessary to produce a clear image. To set the correct angle of view and focus, you can use the BNC output on the camera. For this, please connect a PAL monitor to the BNC output.

6. Video Resolution Setup

The users can set up the Video Resolution on the Video Format page of the user-friendly browser-based configuration interface. The page "Video Format" can be found in the IP camera menu under the path: Streaming > Video Format.

Under the Video Resolution section in the menu page "Video Format", please select your preferred resolution setting:

H.264-1 H.264-2 1920 x 1080 (13fps) 1280 x 1024 (25fps) 1920 x 1080 (13fps) 1280 x 720 (25fps) 1024 x 768 (25fps) 800 x 600 (25fps) 1920 x 1080 (25fps) 640 x 480 (25fps) 1920 x 1080 (25fps) 352 x 288 (25 fps) 1920 x 1080 (25fps) 1280 x 1024 (13fps) 1280 x 1024 (25fps) 1280 x 1024 (13fps) 1280 x 1024 (25fps) 800 x 600 (25fps) 1280 x 720 (25fps) 1024 x 768 (25fps) 1280 x 720 (25fps) 1024 x 768 (25fps) 1280 x 720 (25fps) 800 x 600 (25fps) 1024 x 768 (25fps) 800 x 600 (25fps) 800 x 600 (25fps) 720 x 576 (25fps) 800 x 600 (25fps) 720 x 576	H.264	+ H.264
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H.264 + MJPEG						
H.264	MJPEG					
	1920 x 1080 (13fps)					
	1280 x 1024 (25fps)					
1920 x 1080 (13fps)	1280 x 720 (25fps)					
-	1024 x 768 (25fps)					
	800 x 600 (25fps)					
	720 x 576 (25fps)					
1920 x 1080 (25fps)	640 x 480 (25fps)					
	352 x 288 (25fps)					
	1280 x 1024 (13fps)					
	1280 x 720 (25fps)					
	1024 x 768 (25fps)					
1280 x 1024 (25fps)	800 x 600 (25fps)					
	720 x 576 (25fps)					
	640 x 480 (25fps)					
	352 x 288 (25fps)					
	1280 x 720 (25fps)					
	1024 x 768 (25fps)					
1280 x 720 (25fps)	800 x 600 (25fps)					
1200 x 720 (201p3)	720 x 576 (25fps)					
	640 x 480 (25fps)					
	352 x 288 (25fps)					
	1024 x 768 (25fps)					
	800 x 600 (25fps)					
1024 x 768 (25fps)	720 x 576 (25fps)					
	640 x 480 (25fps)					
	352 x 288 (25fps)					
	800 x 600 (25fps)					
000 (00 (254)	720 x 576 (25fps)					
800 x 600 (25fps)	640 x 480 (25fps)					
	352 x 288 (25fps)					
	720 x 576 (25fps)					
720 x 576 (25fps)	640 x 480 (25fps)					
	352 x 288 (25fps)					
440 x 490 (25fmc)	640 x 480 (25fps)					
640 x 480 (25fps)	352 x 288 (25fps)					
352 x 288 (25fps)	352 x 288 (25fps)					

MJPEG Only	
MJPEG	
1920 x 1080 (25fps)	
1280 x 1024 (25fps)	
1280 x 720 (25fps)	
1024 x 768 (25fps)	
800 x 600 (25fps)	
720 x 576 (25fps)	
640 x 480 (25fps)	
352 x 288 (25fps)	
H.264 Only	
H.264	
1920 x 1080 (25fps) Low Latency	
1920 x 1080 (25fps)	
1280 x 1024 (25fps)	
1280 x 720 (25fps)	
1024 x 768 (25fps)	
800 x 600 (25fps)	
 720 x 576 (25fps)	
640 x 480 (25fps)	

(*) Default

For more streaming combinations with several streams, please refer to "Streaming" > "Video Format" in the camera menu.

7. Browser-based Viewer Introduction

The picture below shows the Home page of the IP Camera's viewer window.



There are four tabs on the left (System, Streaming, Camera and Logout) and one tab on the right (Languages).

System setting :

The administrator can set host name, system time, admin password, network related settings, etc. Further details will be interpreted in chapter 9. System Related Settings.

Streaming setting :

The Administrator can configure a specific video resolution, video compression mode, video protocol, audio transmission mode, etc. in this page. Further details will be interpreted in chapter 10. Streaming Settings.

Camera setting :

Users can adjust various camera parameters. Further details will be interpreted in chapter 11. Camera Settings.

Logout :

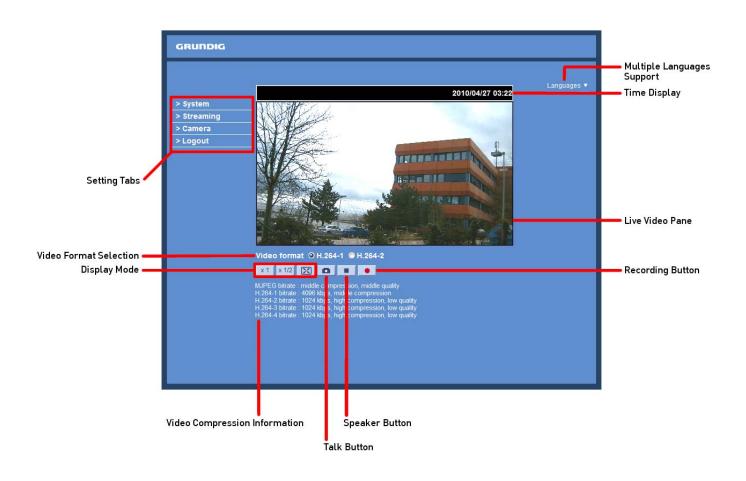
Click on this tab to re-login to the IP Camera with another user name and password. Further details will be interpreted in chapter 12. Logout.

Languages :

Please choose one of the supported languages (German, English, French, Italian or Russian).

8. Home Page

In the Home page, there are several function buttons that are specified below.



Display Mode (Screen Size Adjustment) :

The display size of the image can be adjusted to x1/2 and full screen.

Snapshot button :

After pressing this button, the JPEG snapshots will automatically be saved in the appointed place. The default place of saving snapshots is: C:\. For changing the storage location, please refer to section 9.13. 'File Location (on PC)' for further details.

NOTE: Users with the Windows 7 operating system on their PC need to follow the following procedure to be able to use the Snapshot function. First you need to log on to your computer as an Administrator. Then please go to Windows Start menu, click with the right mouse button on your Internet Browser and select in the appearing popup window "Run as Administrator". Afterwards you can log in to your camera as usual (as an administrator or user).

Video Streaming Pause/Restart button (pause/restart) :

If you click on the stop button to disable video streaming, the live video will be displayed as black. click on the restart button to show the live video again.

Recording button (on/off) :

When you click on this button, the recordings from the Live View will be saved to the location specified in the "File Location" page. The default storage location for the recording is: C:/. See section 9.13. 'File Location (on PC)' for further details.

NOTE: Users with Windows 7 operating system on their PC who want to use the Recording function, need to follow the procedure in the NOTE below the "Snapshot button" section in this chapter.

Multiple Languages Support :

Multiple languages are supported for the viewer window interface.

NOTE: The following functions are not available for the Browsers Firefox, Chrome, Safari and Opera: Full Screen Mode, Snapshot, Playback and Recording.

9. System Related Settings

The picture below shows all categories under the "System" tab. Each category in the left column will be explained in the following sections.

NOTE: The	"System"	configuration	page is or	ly accessible b	y the Administrator.

GRUNDIG	
> System	System
System	Host name : MegaPixelCamera
Security 🔻	Time zone :
Network 🔻	GMT+00:00 Gambia, Liberia, Morocco, England
DDNS	
Mail	Enable daylight saving time
FTP	Time offset: 01:00:00
HTTP	Start date: Jan 🔻 1st 👻 Sun 🔻 Start time: 00:00:00
Motion Detection	End date: Jan V 1st V Sun V End time: 00:00:00
Network failure detection	
Tampering	Sync with computer time
Storage Management	
Recording	PC date: 08/05/2012 [dd/mm/yyyy]
File Location	PC time: 08:53:36 [hh:mm:ss]
View information	
Factory Default	© Manual
Software Version	Date: 01/04/2010 [dd/mm/yyyy]
Software Upgrade	Time: 00:00:00 [hh:mm:ss]
Maintenance	
< Back	◎ Sync with NTP server
	NTP server: 0.0.0.0 [host name or IP address]
	Update interval: Every hour 🔻
	Save

9.1. Host Name & System Time Setting

Click on the first category <System> in the left column; the page is shown below.

GRUNDIG			
> System	System		
Security V	Host name : MegaPixelCamera		
Network 🔻	Time zone :		
DDNS	GMT+00:00 Gambia, Liberia, Morocco, England		
Mail	Enable daylight saving time		
FTP	Time offset: 01:00:00		
HTTP			
Motion Detection			
Network failure detection	End date: Jan Ist Sun End time: 00:00:00		
Tampering	@ Come with an entry time		
Storage Management	Sync with computer time		
Recording	PC date: 08/05/2012 [dd/mm/yyyy]		
File Location	PC time: 08:53:36 [hh:mm:ss]		
View information			
Factory Default	© Manual		
Software Version	Date: 01/04/2010 [dd/mm/yyyy]		
Software Upgrade	Time: 00:00:00 [hh:mm:ss]		
Maintenance			
< Back	© Sync with NTP server		
	NTP server: 0.0.0.0 [host name or IP address]		
	Update interval: Every hour 🔻		
	Save		

Host Name :

The name is for camera identification (max. 30 characters). If an alarm function is enabled and is set to send an alarm message by Mail/FTP, the host name entered here will be displayed in the alarm message.

Time Zone :

Select the time zone you are in from the drop-down menu.

Enable Daylight Saving Time :

To enable DST, please check the item and then specify the time offset and DST duration. The format for time offset is [hh:mm:ss]; for instance, if the amount of time offset is one hour, please enter "01:00:00" into the field.

Sync with Computer Time :

After selecting this item, the video date and time display will be synchronised with the PC.

Manual :

The Administrator can set the date, time and day manually. Entry format should be identical with the format shown next to the enter fields.

Sync with NTP server :

Network Time Protocol (NTP) is an alternative way to synchronise your camera's clock with a NTP server. Please specify the server you wish to synchronise the camera with in the enter field. Then select an update interval from the drop-down menu. For further information about NTP, please see the web site: www.ntp.org.

NOTE: Click on < Save > to confirm the new setting.

9.2. Security

When you click on the category <Security>, there will be a drop-down menu with several tabs including <User>, <HTTPS>, <IP Filter>, and <IEEE 802.1X>.

<User> :

When you click on the <User> tab under the category <Security>, the <User> page will be shown as in the picture below.

GRUNDIG	
> System System Security	Security Admin Password
User HTTPS IP Filter IEEE 802.1X	Admin password ••••••••••••••••••••••••••••••••••••
Network	Add User User name
Mail FTP HTTP	User password I/O access Camera control Talk Listen Add
Motion Detection Network failure detection	Manage User User name no user V Delete Edit
Tampering Storage Management Recording	
File Location View information	
Factory Default Software Version Software Upgrade	
Maintenance < Back	

Admin Password :

Change the administrator's password by putting in the new password in both text boxes. The input characters/numbers will be displayed as dots for security purposes. After clicking <Save>, the web browser will ask the Administrator for the new password for access. The maximum length of the password is 14 digits.

NOTE: The following characters are valid: A-Z, a-z, 0-9, !#\$%&'-.@^_~.

Add User :

Type in the new user name and password and click <Add> to add the new user. The user name can have up to 16 characters, the password up to 14 characters. The new user will be displayed in the user name list. A maximum of 20 user accounts can be set. To each user the privileges "Camera control", "Talk" and "Listen" can be assigned.

- I/O access:

This item supports fundamental functions that enable users to view the video when accessing the camera.

- Camera control:

This item allows the specified User to change the camera's parameters on the Camera Setting page.

- Talk/Listen:

Talk and Listen functions allow the appointed user on the local site (PC site) to communicate, for instance, with the administrator on the remote site.

Manage User :

To delete a user, pull down the user list, and select the user name you wish to delete. Then click <Delete> to remove it.

To edit a user, pull down the user list and select a user name. Click <Edit> to edit the user's password and privileges.

NOTE: It is required to enter the User password and to select the functions that will be open to the user. When finished, click <Save> to modify the account authority.

	ig L/server_editaccount.html	
User name	[user]	
User password	••••	
☑ I/O access	Camera control	
🕅 Talk	🗹 Listen	
Save	Close	

<htps://www.endocombox.com/states/action/sta

<HTTPS> allows secure connections between the IP Camera and the web browser using the <Secure Socket Layer (SSL)> or the <Transport Layer Security (TLS)>, which prevent others from snooping on your camera settings or Username/Password. It is required to install a self-signed certificate or a CA-signed certificate for implemention of <HTTPS>.

After clicking on the	UTTDC . tob	the UTTPS cotting	nage will be chown	has in the figure below.
Alter clicking on the	<pre><mirs> lab,</mirs></pre>	the nurs setting	page will be shown	as in the figure betow.

To use HTTPS on the IP Camera, a HTTPS certificate must be installed. The HTTPS certificate can be obtained by either creating and sending a certificate request to a Certificate Authority (CA) or creating a self-signed HTTPS certificate, as described below.

Create self-signed certificate :

Before a CA-issued certificate is obtained, users can create and install a self-signed certificate first.

Click on the <Create> button under "Create self-signed certificate" and provide the requested information to install a self-signed certificate for the IP Camera. Please refer to the last part of this section: "Provide the Certificate Information" for more details.

NOTE: The self-signed certificate does not provide the same high level of security as when using a CA-issued certificate.

Provide the requested information in the Create Dialog. Please refer to the section "Provide the Certificate Information" for more details.

Install signed certificate :

Click on the "Create Certificate Request" button to create and submit a certificate request in order to obtain a signed certificate from the CA (Certificate Authority).

When the request is complete, the subject of the Created Request will be shown in the field. Click "Properties" below the Subject field, copy the PEM-formatted request and send it to your selected CA.

When the signed certificate is returned, install it by uploading the signed certificate.

GRUNDIG	
 > System System Security ▲ User HTTPS IP Filter IEEE 802.1X Network ▼ DDNS Mail FTP HTTP Motion Detection Network failure detection Tampering Storage Management 	HTTPS Create self-signed certificate Create Install signed certificate Create certificate request Upload signed certificate Browse Upload Created request Subject Installed certificate Subject No certificate installed. Properties Remove Installed certificate Subject No certificate installed. Properties Remove
Recording File Location View information Factory Default Software Version Software Upgrade Maintenance < Back	

Provide the Certificate Information :

To create a Self-signed HTTPS Certificate or a Certificate Request to CA, please enter the information as requested:

6 http://192.168.44.19/lang1/server_cer	rtificate.html - Windows Internet Explorer	
http://192.168.44.19/lang1/server_cer	rtificate.html	
Create Self-Signed Certifica	ate	
Country:		
State or province:		
Locality:		
Organisation:		
Organisational unit:		
Common name:		
Valid days:	365 days[19999]	
	OK Cancel	
i 😜 Inte	rnet	√a ▼ € 125% ▼
- Ince		
http://192.168.44.19/lang1/server_cre	eaterequest.html - Windows Internet Explorer	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request Country:	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request Country: State or province:	Concerning and the second s	
 http://192.168.44.19/lang1/server_cre http://192.168.44.19/lang1/server_cre Create Certificate Request Country: State or province: Locality: 	Concerning and the second s	
 http://192.168.44.19/lang1/server_cre http://192.168.44.19/lang1/server_cre Create Certificate Request Country: State or province: Locality: Organisation: 	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request Country: State or province: Locality: Organisation: Organisational unit:	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request Country: State or province: Locality: Organisation: Organisational unit:	Concerning and the second s	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request Country: State or province: Locality: Organisation: Organisational unit:	eaterequest.html	
http://192.168.44.19/lang1/server_cree http://192.168.44.19/lang1/server_cree Create Certificate Request Country: State or province: Locality: Organisation: Organisational unit:	eaterequest.html	

- Country:

Enter a 2-letter combination code to indicate the country the certificate will be used in. For instance, type in "GB" to indicate Great Britain.

- State or province:

Enter the local administrative region.

- Locality:

Enter other geographical information.

- Organisation:

Enter the name of the organisation to which the entity identified in "Common Name" belongs.

- Organisation Unit:

Enter the name of the organisational unit to which the entity identified in "Common Name" belongs.

- Common Name:

Indicate the name of the person or other entity that the certificate identifies (often used to identify the website).

- Valid days (Self-signed Certificate Only): Enter the period in days (1~9999) to indicate the valid period of the certificate.

Click "OK" to save the Certificate Information after completing.

<IP Filter> :

When using the IP filter, access to the IP Camera can be restricted by denying/allowing specific IP addresses.

System System	IP Filter	
Security User HTTPS IP Filter IEEE 802.1X	Enable IP filter Deny the following IP addresses Filtered IP addresses	Apply
Network DDNS Mail FTP		Delete
HTTP Motion Detection Network failure etection	0.0.0.0	Add
Tampering Storage Management Recording		
File Location View information Factory Default		
Software Version Software Upgrade Maintenance Back		

General :

- Enable IP Filter:

Check the box to enable the IP Filter function. Once enabled, access to the IP Camera will be allowed/denied for the listed IP addresses (IPv4).

Select "Allow" or "Deny" from the drop-down list and click the <Apply> button to determine the IP Filter behaviour.

- Add/Delete IP Address:

Input the IP address and click the <Add> button to add a new filtered address.

The Filtered IP Addresses list box shows the currently configured IP addresses. Up to 256 IP address entries may be specified.

To remove an IP address from the list, please select the IP and then click the <Delete> button.

<IEEE 802.1X> :

The IP Camera can access a network protected by 802.1X/EAPOL (Extensible Authentication Protocol over LAN). To do this, users need to contact the network administrator to receive certificates, user IDs and passwords.

GRUNDIG	
> System _{System}	IEEE 802.1X/EAP-TLS
System Security User HTTPS IP Filter IEEE 802.1X Network DDN S Mail FTP HTTP Motion Detection Network failure detection Tampering Storage Management Recording File Location View information Factory Default Software Version Software Upgrade Maintenance < Back	CA certificate Upload CA certificate. Client certificate Upload Client certificate. Private key Browse Upload Upload Upload Vupload Private key. Settings Identity Private key password ••••• Enable IEEE 802.1X Save

CA Certificate :

The CA certificate is created by the Certification Authority for the purpose of validating itself. Upload the certificate for checking the server's identity.

Client Certificate/Private Key :

Upload the Client Certificate and Private Key for authenticating the IP Camera itself.

Settings :

- Identity:

Enter the user identity associated with the certificate. Up to 16 characters can be used.

- Private Key Password:

Enter the password (maximum 16 characters) for your user identification.

Enable IEEE 802.1X : Check the box to enable IEEE 802.1X.

Click "Save" to save the IEEE 802.1X/ EAP—TLS setting.

9.3. Network

When you click on the category <Network>, there will be a drop-down menu with several tabs including <Basic>, <QoS>, <SNMP>, and <UPnP>.

> System	Network		
System	General		
Security	🔄 🔘 Get IP address automatically		
	 Ouse fixed IP address 		
Basic	IP address	192.168.1.1	
QoS	Subnet mask	255.255.255.0	
SNMP	Default gateway	0.0.0.0	
UPnP			
DDNS	Primary DNS	0.0.0.0	
Mail	Secondary DNS	0.0.0.0	
FTP	Use PPPoE		
HTTP	User name		
Motion Detection	Password		
Network failure letection		Save	
Tampering	Advanced		
Storage Management	Web server port	80	
Recording			
File Location	RTSP port	554	
View information	 MJPEG over HTTP port 	8008	
Factory Default	HTTPS port	443	
Software Version		Save	
Software Upgrade	IPv6 address configuration		
Maintenance	Enable IPv6	Address :	
< Back		Save	

<Basic> :

Users can choose to connect to the IP Camera through a fixed or dynamic (DHCP) IP address. The IP Camera also provides PPPoE (Point-to-Point Protocol over Ethernet) support for users who connect to the network via PPPoE.

GRUNDIG		
System System Security ▼ Network ▲ Basic QoS SNMP UPnP DDNS Mail FTP HTTP Motion Detection Network failure detection Tampering Storage Management Recording File Location View information ▼ Factory Default Software Version Software Upgrade Maintenance	Network General © Get IP address automatically © Use fixed IP address IP address Subnet mask Default gateway Primary DNS Secondary DNS © Use PPPOE User name Password Advanced Web server port RTSP port MJPEG over HTTP port HTTPS port HTTPS port Brable IPv6	192.168.1.1 255.255.255.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 80 534 8008 443 534 8008 443 Save
Software Upgrade	Control and Trade I and the Total And Shares and the Shares and the	

Get IP address automatically (DHCP):

The camera's default setting is "Use fixed IP address". Please refer to the previous section 6. Accessing the Camera for login with the default IP address.

If "Get IP address automatically" is selected, after the IP Camera restarts, users can search the IP address through the installer program "GRUNDIG Finder.exe", that is on the supplied CD.

NOTE: The DHCP function can only be used if you have a DHCP server in the used network.

NOTE: Please make a record of the IP Camera's MAC address, which can be found on the label of the camera, for identification in the future.

Use a fixed IP address :

To set up a static IP address, select "Use fixed IP address" and move the cursor to the IP address blank (as indicated below) and insert the new IP address, e.g. 192.168.44.230; then go to Default Gateway (explained later) and type in the appropriate setting, e.g. 192.168.44.1. Click on "Save" to confirm the new setting.

GRUNDIG	
> System System Security ▼ Network ▲ Basic QoS SNMP UPnP DDNS Mail FTP HTTP	Network General Image: Second ary DNS Object IP address 192.168.44.230 Subnet mask 255.255.255.0 Default gateway 192.168.44.1 Primary DNS 0.0.0.0 Secondary DNS 0.0.0.0
Motion Detection Network failure detection Tampering Storage Management Recording File Location View information Factory Default Software Version Software Upgrade Maintenance < Back	User name Password Advanced Web server port 80 RTSP port 554 MJPEG over HTTP port 8008 HTTPS port 443 Enable IPv6 Address configuration Enable IPv6 Address : Save

When using a static IP address to login to the IP Camera, users can access it either through the "GRUNDIG Finder" software (see 6. Accessing the Camera) or input the IP address in the URL bar and click on "Enter".

Grundig IP Camera - Windows Internet Explorer		
(→) √ (€) http://192.168.44.230/	47	×

- IP address:

This is necessary for network identification.

- Subnet mask:

It is used to determine if the destination is in the same subnet. The default value is "255.255.255.0".

- Default gateway:

This is the gateway used to forward frames to destinations in different subnets. An invalid gateway setting will fail in the transmission to destinations in different subnets.

- Primary DNS:

Primary DNS is the primary domain name server that translates hostnames into IP addresses.

- Secondary DNS:

Secondary DNS is a secondary domain name server that backs up the primary DNS.

Use PPPoE :

The PPPoE users need to enter the PPPoE Username and Password into the fields, and need to click on the "Save" button to complete the setting.

 ${\sf Advanced}:$

- Web Server port:

The default web server port is 80. Once the port is changed, all users must be informed about the change for the connection to be successful. For instance, when the Administrator changes the HTTP port of the IP Camera which has the IP address "192.168.0.100" from 80 to 8080, the users must type in in the web browser "http://192.168.0.100:8080" instead of "http://192.168.0.100".

- RTSP port:

The default setting of the RTSP Port is 554; the setting range is from 1024 to 65535.

- MJPEG over HTTP port:

The default setting of the MJPEG over HTTP Port is 8008; the setting range is from 1024 to 65535.

- HTTPS port:

The default setting of the HTTPS Port is 443; the setting range is from 1024 to 65535.

NOTE: Be aware to assign a different port number for each separate service mentioned above.

IPv6 Address Configuration :

With IPv6 support, users can use the corresponding IPv6 address for browsing. Enable IPv6 by checking the box and click "Save" to complete the setting.

<QoS> (Quality of Service) :

QoS allows providing differentiated service levels for different types of traffic packets which guarantees delivery of priority services especially when network congestion occurs. Adapting the Differentiated Services (DiffServ) model, traffic flows are classified and marked with DSCP (DiffServ Codepoint) values, and thus receive the corresponding forwarding treatment from DiffServ capable routers.

GRUNDIG		
> System	QoS	
System	DSCP settings	
Security 🔻	Video DSCP	0
Network 🔺	Audio DSCP	0
Basic	Management DSCP	0
QoS	Management DSCP	
SNMP		Save
UPnP		
DDNS		
Mail		
FTP		
нттр		
Motion Detection		
Network failure detection		
Tampering		
Storage Management		
Recording		
File Location		
View information		
Factory Default		
Software Version		
Software Upgrade		
Maintenance		
< Back		

DSCP Settings :

The DSCP value range is from 0 to 63. The default DSCP value is 0, which means that DSCP is disabled.

The IP Camera uses the following QoS Classes: Video, Audio and Management.

- Video DSCP:

This class consists of applications such as MJPEG over HTTP, RTP/RTSP and RTSP/HTTP.

- Audio DSCP:

This setting is only available for the IP Cameras which support audio.

- Management DSCP: This class consists of the HTTP traffic: Web browsing.

Click the "Save" button to complete the setting.

NOTE: To enable this function, please make sure the switches/routers in the network support QoS.

<SNMP> (Simple Network Management Protocol) :

With Simple Network Management Protocol (SNMP) support, the IP Camera can be monitored and managed remotely by the network management system.

GRUNDIG			
> System _{System}	SNMP Settings SNMP v1/v2		
Security 🔻	Enable SNMP v1		
Network 🔺	Enable SNMP v2		
Basic	Read community	public	
QoS	Write community	private	
SNMP			
UPnP	Traps for SNMP v1/v2		
DDNS	Enable traps		
	Trap address		
	Trap community	public	
Motion Detection	Trap options		
Network failure detection	Warm start		
Tampering	Save		
Storage Management	Save		
Recording			
File Location			
View information			
Factory Default			
Software Version			
Software Upgrade			
Maintenance			
< Back			

SNMP v1/v2 :

- Enable SNMP:

Select the version of SNMP to use by checking the corresponding box.

- Read Community:

Specify the community name which has read-only access to all supported SNMP objects. The default value is "public".

- Write Community:

Specify the community name which has read/write access to all supported SNMP objects (except read-only objects). The default value is "private".

Traps for SNMP v1/v2 :

Traps are used by the IP Camera to send messages to a management system about important events or status changes.

- Enable Traps:

Check the box to activate trap reporting.

- Trap address:

Enter the IP address of the management server.

- Trap community:

Enter the community to use when sending a trap message to the management system.

Trap option :

- Warm start:

A Warm start SNMP trap signifies that the SNMP device, i.e. the IP Camera, performs a software reload.

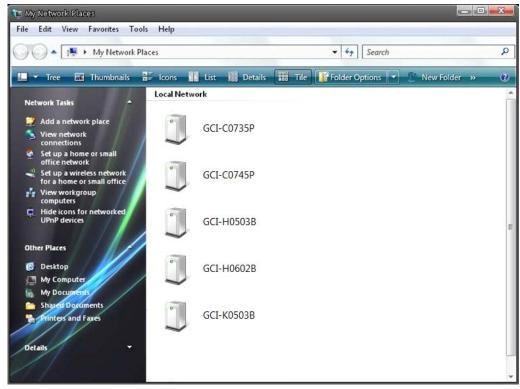
Click the "Save" button to complete the setting.

<UPnP> :

UPnP Setting :

- Enable UPnP:

When UPnP is enabled, whenever the IP Camera is presented to LAN, the icon of the connected IP Cameras will appear in My Network Places to allow for direct access as shown below.



NOTE: To enable this function, please make sure the UPnP component is installed on your computer. Please refer to chapter 16. Install UPnP Components for UPnP component installation procedure.

- Enable UPnP port forwarding:

When UPnP port forwarding is enabled, the IP Camera is allowed to open the web server port on the router automatically.

NOTE: To enable this function, please make sure that your router supports UPnP and is activated.

- Friendly name:

Set the name of the IP Camera for identification.

9.4. DDNS

The Dynamic Domain Name System (DDNS) allows a host name to be constantly synchronised with a dynamic IP address. In other words, it allows those using a dynamic IP address to be associated to a static domain name so that others can connect to it through this name.

GRUNDIG			
> System _{System}	DDNS Dynamic DNS		
Security 🔻	Use dynamic DNS if you w	ant to use your DDNS account.	
Network 🔻	Enable DDNS		
DDNS	Provider	DynDNS.org(Dynamic) 🔻	
Mail	riotider	<i>Dynamic g(Dynamic)</i>	
FTP	Host name		
HTTP			
Motion Detection	Usemame/E-mail		
Network failure detection			
Tampering	Password/Key		
Storage Management		Save	
Recording			
File Location			
View information			
Factory Default			
Software Version			
Software Upgrade			
Maintenance			
< Back			

Enable DDNS : Check the item to enable DDNS.

Provider :

Select one DDNS host from the provider list.

Host name :

Enter the registered domain name in the field.

Username/E-mail :

Enter the user name or e-mail required by the DDNS provider for authentication.

Password/Key :

Enter the password or key required by the DDNS provider for authentication.

9.5. Mail

The Administrator can can set up the sending of an e-mail via Simple Mail Transfer Protocol (SMTP) when a motion is detected. SMTP is a protocol for sending e-mail messages from server to server. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified and to whom the message text is transferred. The configuration page is shown below:

SystemSMTPSecurityIst SMTP (mail) serverNetworkIst SMTP (mail) server portDDNSIst SMTP account nameMailIst SMTP passwordFTPIst creipient email addressMotion DetectionIst SMTP SSLNetwork failure tectionInt SMTP (mail) serverTampering2nd SMTP (mail) server portStorage Management2nd SMTP passwordFile LocationInt SMTP passwordView informationInt SMTP SSLSoftware Version2nd SMTP SSLSoftware VersionInt SMTP SSLSoftware VersionSender email addressSoftware UpgradeSave	System	Mail	
Network Ist SMTP (mail) server port 25 DDNS 1st SMTP account name Mail 1st SMTP password FTP 1st recipient email address Motion Detection Ist SMTP SSL Network failure 2nd SMTP (mail) server etection 2nd SMTP (mail) server Znd SMTP (mail) server 2nd SMTP (mail) server 2nd SMTP (mail) server 2nd SMTP (mail) server Znd SMTP (mail) server 2nd SMTP (mail) server Znd SMTP (mail) server 2nd SMTP (mail) server Znd SMTP (mail) server port 25 Znd SMTP (mail) server port 25 Znd SMTP (mail) server port 25 Znd SMTP account name 2nd SMTP account name Znd SMTP password 2nd SMTP password Znd SMTP SSL Sender email address View information Image: Sender email address Software Version Save Software Upgrade Save	System	SMTP	
DDNS 1st SMTP account name Mail 1st SMTP password FTP 1st recipient email address HTTP 1st SMTP SSL Network failure etection 2nd SMTP (mail) server port 25 2nd SMTP (mail) server port 25 2nd SMTP account name 2nd SMTP account name 2nd SMTP account name Prevention 2nd SMTP account name 2nd SMTP password 2nd SMTP password File Location 2nd SMTP password View information 2nd SMTP SSL Factory Default Software Version Sender email address Software Version Save	Security	1st SMTP (mail) server	
Mail 1st SMTP account name FTP 1st SMTP password HTTP 1st sMTP SSL Motion Detection I st SMTP SSL Network failure 2nd SMTP (mail) server tection 2nd SMTP (mail) server port Storage Management 2nd SMTP password Recording 2nd SMTP password File Location 2nd SMTP SSL Yiew information I 2nd SMTP SSL Software Version Sender email address Software Upgrade Save	Network	 1st SMTP (mail) server port 	25
FTP 1st SMTP password HTTP 1st recipient email address Motion Detection Ist SMTP SSL Network failure tection 2nd SMTP (mail) server Tampering 2nd SMTP (mail) server port Storage Management 2nd SMTP account name Recording 2nd SMTP password File Location 2nd SMTP SSL View information Image: 2nd SMTP SSL Factory Default Sender email address Software Version Save	DDNS	1st SMTP account name	
FTP HTTP Abtion Detection Ist recipient email address Ist SMTP SSL 2nd SMTP (mail) server 2nd SMTP (mail) server port 25 2nd SMTP account name Storage Management File Location 2nd SMTP password Image: Storage Management Software Version Software Version Software Version Software Upgrade	Mail	1st SMTP password	
HTTP Motion Detection Network failure tection 2nd SMTP (mail) server 2nd SMTP (mail) server port 2s 2nd SMTP account name 2nd SMTP password 2nd recipient email address View information I 2nd SMTP SSL Factory Default Software Version Software Upgrade Maintenance	FTP		
Network failure 2nd SMTP (mail) server tection 2nd SMTP (mail) server port Tampering 2nd SMTP account name Storage Management 2nd SMTP account name Recording 2nd SMTP password File Location 2nd recipient email address View information 2nd SMTP SSL Factory Default Sender email address Software Version Save			
tection 2nd SMTP (mail) server port 25 Storage Management 2nd SMTP account name 21 Recording 2nd SMTP password 21 File Location 2nd recipient email address 21 View information Image: 2nd SMTP SSL 21 Factory Default Sender email address 36 Software Version Save Save			
Tampering Storage Management Recording 2nd SMTP account name 2nd SMTP password 2nd recipient email address View information 2nd SMTP SSL Factory Default Software Version Software Upgrade Maintenance			
Recording 2nd SMTP password File Location 2nd recipient email address View information Image: 2nd SMTP SSL Factory Default Sender email address Software Version Save Software Upgrade	Tampering		25
File Location 2nd recipient email address View information Image: 2nd SMTP SSL Factory Default Sender email address Software Version Save Software Upgrade Save	Storage Management	2nd SMTP account name	
View information Image: Complete chain dudress Factory Default Sender email address Software Version Save Maintenance Save	Recording	2nd SMTP password	
Factory Default Sender email address Software Version Save Maintenance Save	File Location	2nd recipient email address	
Software Version Software Upgrade Maintenance Software Upgrade	View information	2nd SMTP SSL	
Software Upgrade Maintenance	Factory Default	Sender email address	
Maintenance	Software Version		Save
Back			
	Back		

Two sets of SMTP can be configured. Each set includes the SMTP Server, Account Name, Password and E-mail Address settings. Concerning the SMTP server, contact your network service provider for more specific information.

Click the "Save" button to save the changes.

9.6. FTP

The Administrator can set the sending of alarm messages to a specific File Transfer Protocol (FTP) site when motion is detected. Users can assign an alarm message to up to two FTP sites. The FTP setting page is shown below. Enter the FTP details, which include server, server port, user name, password and remote folder, into the fields.

Click	"Save"	when	the	setting	is	finished.
OUCK	Jave	WIICII	uie	setting	15	ministieu.

GRUNDIG				
> System _{System}	FTP FTP			
Security Network	1st FTP server			
DDNS	1st FTP server port 1st FTP user name	21		
Mail FTP	1st FTP password			
нттр	1st FTP remote folder			
Motion Detection Network failure detection	 1st FTP passive mode 2nd FTP server 			
Tampering Storage Management	2nd FTP server port	21		
Recording File Location	2nd FTP user name 2nd FTP password			
View information View Default	2nd FTP remote folder			
Software Version	2nd FTP passive mode	Save		
Software Upgrade Maintenance				
< Back				

9.7. HTTP

A HTTP Notification server can listen for notification messages from IP Cameras by triggered events. The HTTP setting page is shown below. Enter the HTTP details, which include the server name (for instance, http://192.168.1.1/admin.php), user name, and password into the fields. <Alarm> triggered and <Motion Detection> notifications can then be sent to the specified <HTTP> server.

GRUNDIG	
> System	HTTP
System	НТТР
Security 🔻	1st HTTP server
Network 🔻	
DDNS	1st HTTP user name
Mail	1st HTTP password
FTP	2nd HTTP server
HTTP	
Motion Detection	2nd HTTP user name
Network failure detection	2nd HTTP password
Tampering	Save
Storage Management	Save
Recording	
File Location	
View information	
Factory Default	
Software Version	
Software Upgrade	
Maintenance	
< Back	

Please refer to: 9.8. Motion Detection for HTTP Notification settings.

9.8. Motion Detection

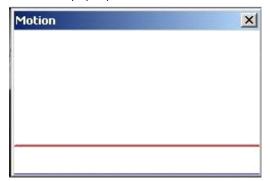
The Motion Detection function allows detecting suspicious motion and triggers alarms when motion volume in the detected area reaches/exceeds the determined sensitivity threshold value.

GRUNDIG					
> System	Motion Detection				
System	Motion Detection				
Security •	● Off ◎ On				
Network 🔻	Motion Detection Setting				
DDNS	Sampling pixel interval [1-10]	1			
Mail	Detection level [1-100]	10			
FTP	Sensitivity level [1-100]	80			
HTTP	Time interval(sec) [0-7200]	10			
Motion Detection		10			
Network failure detection	Triggered Action				
Tampering	Record stream to sd card		Motion Detection Windows add delete		
Storage Management	Send alarm message by FTP		Send alarm message by E-mail		
Recording	Upload image by FTP		Upload image by E-Mail		
File Location	Send HTTP notification				
View information	File Name : image.jpg				
Factory Default	Add date/time suffix				
Software Version	Add sequence number suffix (no maximum value)				
Software Upgrade	\odot Add sequence number suffix up to 0 and then start over				
Maintenance	© Overwrite				
< Back	save				

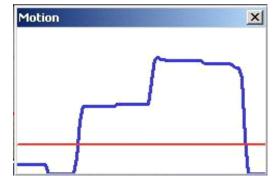
In the Motion Detection setting page a frame (Motion Detection Window) is displayed in the Live View Pane. The Motion Detection Window is for defining the motion detection area. To change the size of the Motion Detection Window, move the mouse cursor to the edge of the frame and draw it outward/inward. When you move the mouse cursor to the center of the frame and hold the click, you can shift the frame to the intended location.

Up to 10 Motion Detection Windows can be set. click on the "Add" button under the Live View Pane to add a Motion Detection Window. To delete a Motion Detection Window, move the mouse cursor to the selected Window, and click on the "Delete" button.

If the Motion Detection function is activated, a pop-up window (Motion) with motion indication will be shown.



When a motion is detected, the signals will be displayed in the Motion window as shown below:



The detailed settings of Motion Detection are described as follows:

Motion Detection :

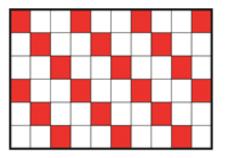
You will be able to turn the Motion Detection on/off in the System section "Motion Detection". The default setting is: Off.

Motion Detection Setting :

Users can adjust various parameters of Motion Detection in this section.

- Sampling pixel interval [1-10]:

The default value is 1. If the value is set as 3, it means that within the detection region, the system will take one sampling pixel for every 3 pixels by each row and each column (please refer to the figure below).



- Detection level [1-100]:

The default level is 10. This item is to set the detection level for each sampling pixel; the smaller the value, the more sensitive the detection is.

- Sensitivity level [1-100]:

The default level is 80, which means if 20% or more sampling pixels are detected as changing, the system will detect motion. The bigger the value, the more sensitive the detection is. Meanwhile, when the value is bigger, the red horizontal line in the motion indication window will be accordingly lower.

- Time interval (sec) [0-7200]:

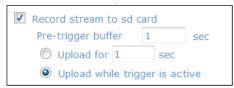
The default interval is 10. This value is the interval between each detected motion.

Triggered Action (Multi-option) :

The Administrator can specify alarm actions that will take place when the alarm is triggered. All options are listed as follows:

- Record Stream to SD Card:

When you select this item, the Motion Detection recording will be stored on your Micro SD/SDHC card when motion is detected.



The pre-trigger buffer recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 3 seconds.

Select <Upload for ____ sec> to set the recording duration after the alarm is triggered. The setting range is from 1 to 99999 seconds.

Select <Upload while trigger is active> to record the triggered video until the trigger is turned off.

NOTE: Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. See section 9.12. 'Recording (on Camera)' for further details.

- Send Alarm Message by FTP:

The Administrator can choose to send an alarm message by FTP when a motion is detected.

- Send Alarm Message by E-Mail:

The Administrator can choose to send an alarm message by E-Mail when a motion is detected.

- Upload Image by FTP:

After selecting this item, the Administrator can assign a FTP site and configure various parameters as shown in the picture below. When a motion is detected, event images will be uploaded to the appointed FTP site.

Upload image by FTP	
FTP address	FTP1 🔻
Pre-trigger buffer	5 frames 🔹
Post-trigger buffer	5 frames 🛛 👻
Continue image upload	
Opload for 1 sec	
Opload while trigger is active	
Image frequence	Max. 🔻 fps

The <Pre-trigger buffer> recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 20 frames.

On the other hand, the <Post-trigger buffer> is for uploading a certain amount of images after the alarm input is triggered. The post-trigger buffer time range is from 1 to 20 frames.

Check the box <Continue image upload> to upload the triggered images during a certain time or keep uploading until the trigger is off.

- Select <Upload for __sec> and enter the duration in the blank. The images of the duration will be uploaded to the FTP when the alarm input is triggered. The setting range is from 1 to 9999 seconds.

- Select <Upload while trigger is active> to keep the images being uploaded to the FTP while the trigger is active, i.e. until the alarm is stopped.

Set the Image frequency as the upload frame rate. The setting range is from 1 frame to 15 frames.

- Upload Image by E-Mail:

After selecting this item, the Administrator can assign an e-mail address and configure various parameters as shown in the picture below. When a motion is detected, event images will be sent to the appointed e-mail address.

V	Upload image by E-Mail	
	E-Mail address	E-Mail 1 💌
	Pre-trigger buffer	5 frames 👻
	Post-trigger buffer	5 frames 👻
	Continue image upload	
	Opload for 1 sec	
	Opload while trigger is act	tive
	Image frequence	Max. 👻 fps

The <Pre-trigger buffer> recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 20 frames.

On the other hand, the <Post-trigger buffer> is for uploading a certain amount of images after the alarm input is triggered. The post-trigger buffer time range is from 1 to 20 frames.

Check the box <Continue image upload> to upload the triggered images during a certain time or keep uploading until the trigger is off.

- Select <Upload for __sec> and enter the duration in the blank. The images of the duration will be uploaded to the FTP when the alarm input is triggered. The setting range is from 1 to 9999 seconds.

- Select <Upload while trigger is active> to keep the images being uploaded to the FTP while the trigger is active, i.e. until the alarm is stopped.

Set the Image frequency as the upload frame rate. The setting range is from 1 frame to 15 frames.

NOTE: Make sure SMTP or FTP configuration has been completed. See section 9.5. Mail and 9.6. FTP for further details.

- Send HTTP notification:

Check this item, select the destination HTTP address, and specify the parameters for event notifications when <Motion Detection> is triggered. When an alarm is triggered, the notification can be sent to the specified HTTP server.

For instance, if the custom parameter is set as "action=1&group=2", and the HTTP server's name is" http://192.168.1.200/admin.php", the notification will be sent to the HTTP server as "http://192.168.1.200/admin.php? Action=1&group=2" when an alarm is triggered.

Send HTTP notification	on
HTTP address	HTTP1 ▼
Custom parameters	

File Name :

Enter a file name into the blank box, e.g. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

Add date/time suffix:
File name: imageYYMMDD_HHNNSS_XX.jpg
Y: Year, M: Month, D: Day
H: Hour, N: Minute, S: Second
X: Sequence Number

- Add sequence number suffix (no maximum value): File name: imageXXXXXX.jpg X: Sequence Number

Add sequence number suffix up to _ and then start over:
 File Name: imageXX.jpg
 X: Sequence Number

The file name suffix will end at the number being set. For example, if the setting is "10", the file name will start from 00, end at 10, and then start all over again.

- Overwrite:

The original image in the FTP site will be overwritten with a static filename by the new uploaded file.

Save :

Click on the "Save" button to save all the Motion Detection alarm settings mentioned above.

9.9. Network Failure Detection

This function is used to detect network failure that might happen during camera operation.

	on		
and the part of th	© On		
Ping the IP address	0.0.0	every 1	minutes
Triggered Action			
Record stream to	sd card		
Send message by	FTP		Send message by E-Mail
Save			
	Detection Switch Off Detection Type Ping the IP address Triggered Action Record stream to Send message by	Off On Detection Type Ping the IP address 0.0.0.0 Triggered Action Record stream to sd card Send message by FTP	Detection Switch Off Of On Detection Type Ping the IP address 0.0.0.0 every 1 Triggered Action Record stream to sd card Send message by FTP

Detection Switch :

Here you can turn the Network Failure Detection on and off.

Detection Type :

Here you can set an IP address that should be pinged in order to detect network failure. Please also set the interval (in minutes) for this pinging.

Triggered Action (Multi-option) :

The Administrator can specify alarm actions that will take place when motion is detected. All options are listed as follows:

- Record Stream to SD Card:

When you check this item, the alarm-triggered recording will be stored on your Micro SD/SDHC card when Network Failure is detected.

Record stream to sd	card	
Pre-trigger buffer	1 sec	
O Upload for 1	sec	
Opload while trig	ger is active	

The pre-trigger buffer recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 3 seconds.

Select <Upload for ____ sec> to set the recording duration after the alarm is triggered. The setting range is from 1 to 99999 seconds.

Select <Upload while trigger is active> to record the triggered video until the trigger is turned off.

NOTE: Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. See section 9.12. 'Recording (on Camera)' for further details.

- Send Alarm Message by FTP:

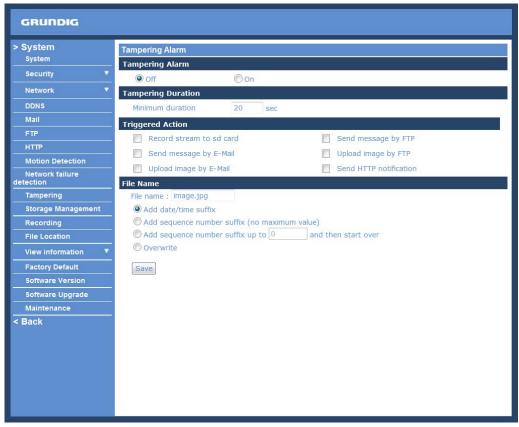
The Administrator can select whether to send an alarm message by FTP when Network Failure is detected.

- Send Alarm Message by E-Mail:

The Administrator can choose to send an alarm message by E-Mail when Network Failure is detected.

9.10. Tampering

The Tampering Alarm function helps the IP Camera against tampering such as deliberate redirection, blocking, spray paint, lens covering, etc. through video analysis and reaction to such events by sending out notifications or uploading snapshots to the specified destination(s).



Detection of camera tampering is achieved by measuring the differences between the older frames of video (which are stored in buffers) and more recent frames.

Tampering Alarm :

You will be able to turn the Tampering Alarm function on/off in the Tampering Alarm setting section. The default setting is: Off.

Tampering Duration :

The Minimum Tampering Duration is the time the video analysis will need to determine whether any camera tampering has occurred. Defining the Minimum Duration can also be interpreted as defining the Tampering threshold; longer duration represents a higher threshold. The settable Tampering Duration time range is from 10 to 3600 seconds.

Triggered Action (Multi-option) :

The Administrator can specify alarm actions that will take place when tampering is detected. All options are listed as follows:

- Record Stream to SD Card:

When you check this item, the alarm-triggered recording will be stored on your Micro SD/SDHC card when Tampering is detected.

Record stream to sd	card	
Pre-trigger buffer	1	sec
O Upload for 1	sec	
Opload while trig	ger is ac	tive

The pre-trigger buffer recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 3 seconds.

Select <Upload for ____ sec> to set the recording duration after the alarm is triggered. The setting range is from 1 to 99999 seconds.

Select <Upload while trigger is active> to record the triggered video until the trigger is turned off.

NOTE: Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. See section 9.12. 'Recording (on Camera)' for further details.

- Send Alarm Message by FTP:

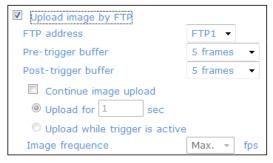
The Administrator can select whether to send an alarm message by FTP when Tampering is detected.

- Send Alarm Message by E-Mail:

The Administrator can choose to send an alarm message by E-Mail when Tampering is detected.

- Upload Image by FTP:

After selecting this item, the Administrator can assign a FTP site and configure various parameters as shown in the figure below. When tampering is detected, event images will be uploaded to the appointed FTP site.



The <Pre-trigger buffer> recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 20 frames.

On the other hand, the <Post-trigger buffer> is for uploading a certain amount of images after the alarm input is triggered. The post-trigger buffer time range is from 1 to 20 frames.

Check the box <Continue image upload> to upload the triggered images during a certain time or keep uploading until the trigger is off.

- Select <Upload for __sec> and enter the duration in the blank. The images of the duration will be uploaded to the FTP when the alarm input is triggered. The setting range is from 1 to 9999 seconds.

- Select <Upload while trigger is active> to keep the images being uploaded to the FTP while the trigger is active, i.e. until the alarm is stopped.

Set the Image frequency as the upload frame rate. The setting range is from 1 frame to 15 frames.

- Upload Image by E-Mail:

After selecting this item, the Administrator can assign an e-mail address and configure various parameters as shown in the figure below. When tampering is detected, event images will be sent to the appointed e-mail address.

Upload image by E-Mail	
E-Mail address	E-Mail 1 🔻
Pre-trigger buffer	5 frames 👻
Post-trigger buffer	5 frames 👻
Continue image upload	
Opload for 1 sec	
Opload while trigger is act	tive
Image frequence	Max. 👻 fps

The <Pre-trigger buffer> recording function allows users to check what happened to trigger the alarm. The pre-trigger buffer time range is from 1 to 20 frames.

On the other hand, the <Post-trigger buffer> is for uploading a certain amount of images after the alarm input is triggered. The post-trigger buffer time range is from 1 to 20 frames.

Check the box <Continue image upload> to upload the triggered images during a certain time or keep uploading until the trigger is off.

- Select <Upload for __sec> and enter the duration in the blank. The images of the duration will be uploaded to the FTP when the alarm input is triggered. The setting range is from 1 to 9999 seconds.

- Select <Upload while trigger is active> to keep the images being uploaded to the FTP while the trigger is active, i.e. until the alarm is stopped.

Set the Image frequency as the upload frame rate. The setting range is from 1 frame to 15 frames.

NOTE: Make sure SMTP or FTP configuration has been completed. See section 9.5. Mail and 9.6. FTP for further details.

- Send HTTP notification:

Check this item, select the destination HTTP address, and specify the parameters for HTTP notifications. When the Tampering Alarm is triggered, the HTTP notifications can be sent to the specified HTTP server.

For instance, if the custom parameter is set as "action=1&group=2", and the HTTP server's name is "http://192.168.1.200/admin.php", the notification will be sent to the HTTP server as "http://192.168.1.200/admin.php? Action=1&group=2" when an alarm is triggered.

Send HTTP notification	
HTTP address	HTTP1 🔻
Custom parameters	

File Name :

The uploaded image's filename format can be set in this section. Please select the one that meets your requirements (please see the section "File Name" in 9.8. Motion Detection).

Save :

Click the Save button to save all the Tampering Alarm settings mentioned above.

9.11. Storage Management (on Camera)

Users can store local recordings on a Micro SD/SDHC card of up to 32 GB. This page shows the capacity information of the Micro SD card and a recording list with all the recording files saved on the memory card. Users can also format the SD card and implement automatic recording cleanup through the setting page.

To implement Micro SD card recording, please go to the "Recording" page (see 9.12. 'Recording (on Camera)') for activation.

NOTE: Please format the Micro SD/SDHC card when using it for the first time. Formatting will also be required when a memory card has already been used on one device and was later transferred to another device with a different software platform.

GRUNDIG				
> System _{System}	Storage Management Device information			
Security 🔻	Device Information Device type:	SD card		
Network 🔻	Free space:	0 KB	Total size:	0 KB
DDNS	Status:	No	Full:	No
Mail	Device setting			
FTP	Format device :	Format		
HTTP	Disk cleanup setting			
Motion Detection	Enable automatic	diele elemente		
Network failure detection	Remove recordings		1 day(s) 🔻	
Tampering	Remove oldest rec	ordings when disk is:	85 % full	
Storage Management	Save		Jo Tur	
Recording				
File Location	Recording list			
View information 🔻	FileName		Size	
Factory Default				
Software Version				
Software Upgrade				
Maintenance	Remove	Sort download		
< Back	Kentove	download		

Device Information :

When users insert the Micro SD/SDHC card, the card information such as the memory capacity and status will be shown in the Device Information section. The memory card is successfully installed if its status is shown in the "Device information" section in the Storage Management page.

Device Setting :

Click on the "Format" button to format the memory card.

Disk Cleanup Setting :

Users can enable an automatic recordings cleanup by checking this item and specifying the time and storage limits.

Recording List :

Each video file on the Micro SD/SDHC card will be listed in the Recording list as shown below. The maximum file size is 60 MB (60 MB per file).

If the recording modus is set to "Always" and at the same time the event recording (when a motion detection or an alarm takes place) is also turned on, in this case, when an event occurs, the event will be recorded first, afterwards the camera will return to normal recording mode. When the recording mode is set to "Always" (consecutive recording) in the submenu "Recording" and the Micro SD/SDHC card recording is also allowed to be enabled when triggered by events, once the events occur, the system will immediately implement the recorded events to the memory card. After event recording, the device will return to regular recording mode.

Recording list	
FileName	Size
M_20110325_175641.avi	1114 K 🔺
M 20110325 175800.avi	14855 🖼
M 20110325 175824.avi	9901 K
M 20110325 180018.avi	16938
M_20110325_180047.avi	16904 🖡 🔫
Remove Sort	Download

- Remove:

To remove a file, select the file first, and then click on the "Remove" button.

- Sort:

When you click on the "Sort" button, the files in the Recording list will be listed in name and date order.

NOTE: The capital letters (A, M or R) appearing in the very beginning of a name denote the sort of the recording: A stands for Alarm, M stands for Motion and R stands for regular recording.

- Download:

To open/download a video clip, select the file first, and then click on the "Download" button underneath the Recording list field. The selected file window will pop up as shown below. Click on the AVI file to directly play the video in the player or download it to a specified location.

() http://192.16	8.44.47/cgi-bin/sddownloa	d	×
@ http://192.1	68.44.47/cgi-bin/sddownlo	oad.cgi?downloa	
Download reco	rding file		
Select file list			
File name:	M 20110325 175800.av	<u>ri</u>	
Internet	-	▼ [®] 100%	

9.12. Recording (on Camera)

In the Recording setting page, users can specify the recording schedule that fits the present surveillance requirement.

> System System	Recording				
Security 🔻	Recording scl	hedule			
	Oisable				
Hetwork	O Always				
DDNS	Only during	g time frame ekday	Start time	Duration	
Mail					
FTP	1 2				
HTTP	3				
Motion Detection	4 5				
Network failure etection	6 7				
Tampering	8				
Storage Management	9 10				
Recording		Mon Tue	Wed T	hu 🗌 Fri	Sat
File Location	Start time :		Duration : 00:		
View information	Save				
Factory Default					
Software Version					
Software Upgrade					
Maintenance					
Back					

Activating Micro SD/SDHC Card Recording :

Two types of schedule mode are offered: "Always" and "Only during time frame". You can set up the time frame according to your requirements or you can choose "Always" to allow the Micro SD/SDHC Card Recording to be activated all the time.

Please click on the "Save" button to confirm the schedule mode.

Terminating Micro SD/SDHC Card Recording :

Select "Disable" to terminate the recording function.

9.13. File Location (on PC)

Users can specify a storage location for the snapshots and the live video recording. The default setting is: C:\. Once the setting is confirmed, click on "Save," and all the snapshots and recordings will be saved in the designated location.

NOTE: Please make su	re the selected file path	contains valid character	s such as letters and numbers.

GRUNDIG			
> System	File Location		
System	Set the destination of snapsh	ot photos and recorded vid	leo files
Security 🔻	All files stored at:	C:\	Select
Network 🔻		C:\	Select
DDNS	Save		
Mail			
FTP			
HTTP			
Motion Detection			
Network failure detection			
Tampering			
Storage Management			
Recording			
File Location			
View information			
Factory Default			
Software Version			
Software Upgrade			
Maintenance			
< Back			

NOTE: Users with the Windows 7 operating system on their PC need to follow the following procedure to be able to use the Snapshot function. First you need to log on to your computer as an Administrator. Then please go to Windows Start menu, click with the right mouse button on your Internet Browser and select in the appearing popup window "Run as Administrator". Afterwards you can log in to your camera as usual (as an administrator or user).

9.14. View Log File

Click on the link to view the system log file. The content of this file provides useful information about configuration and connections after system boot-up.

System	System Log
System	[Tue May 8 08:49:00 2012]Network interface initialized start
Security 🔻	[Tue May 8 08:49:08 2012]Network interface initialized end
Network 🔻	[Tue May 8 08:49:08 2012]Host IP = 192.168.44.36 [Tue May 8 08:49:08 2012]Subnet Mask = 255.255.255.0
DDNS	[Tue May 8 08:49:08 2012]Gateway = 192.168.44.1
Mail	[Tue May 8 08:49:08 2012]MAC address = B8:41:5F:01:C5:B0 [Tue May 8 08:49:38 2012]admin@::ffff:192.168.44.73 GET / HTTP/1.1
FTP	[Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/setlogout.c
HTTP	[Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/ret.cgi HTT [Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/main.cgi HT
Motion Detection	[Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/top.cgi HTT
Network failure detection	[Tue May 8 08:49:40 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/center.cgi F [Tue May 8 08:49:42 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/showdate.c
Tampering	[Tue May 8 08:49:49 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/servermain [Tue May 8 09:15:37 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/storage.cgi
Storage Management	
Recording	
File Location	
View information	
Log file	
User information	
Parameters	۲. III کې او کې
Factory Default	
Software Version	
Software Upgrade	
Maintenance	
< Back	

9.15. View User Information

The Administrator can view each user's login information and their privileges (see section 9.2. Security).

View User Login Information :

All the users in the network will be listed in the "User Information" zone, as shown below. The picture below shows: User: 4321

This indicates that one user's	login username is: User.	and the password is: 4321
	tegin deen name ier eeer,	

GRUNDIG	
> System _{System}	System Log
Security 🔻	[Tue May 8 08:49:00 2012]Network interface initialized start ^ [Tue May 8 08:49:08 2012]Network interface initialized end [Tue May 8 08:49:08 2012]Host IP = 192.168.44.36
Network	[Tue May 8 08:49:08 2012]Subnet Mask = 255.255.255.0
DDNS	[Tue May 8 08:49:08 2012]Gateway = 192.168.44.1 [Tue May 8 08:49:08 2012]MAC address = B8:41:5F:01:C5:B0
Mail	[Tue May 8 08:49:38 2012]admin@::ffff:192.168.44.73 GET / HTTP/1.1
FTP	[Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/setlogout.c [Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cqi-bin/ret.cqi HTT
HTTP	[Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/main.cgi H1 [Tue May 8 08:49:39 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/top.cgi HTT
Motion Detection	[Tue May 8 08:49:39 2012]admin@::iff:192.168.44.73 GET/cgi-bin/conter.cgi F
detection	[Tue May 8 08:49:42 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/showdate. [Tue May 8 08:49:49 2012]admin@::ffff:192.168.44.73 GET /cgi-bin/servermain
Tampering	[Tue May 8 09:15:37 2012]admin@::ifff:192.168.44.73 GET /cgi-bin/storage.cgi
Storage Management	
Recording	
File Location	
View information	
Log file User information	
Parameters	• • • • • • • • • • • • • • • • • • •
Factory Default	
Software Version	
Software Upgrade	
Maintenance	
< Back	

View User Privilege :

If you click on "Get user privacy" at the bottom of the page, the Administrator will be able to view each user's privileges.

- Constants		
> System	Parameter List	
System	Mega Pixel Camera Initial Configuration File	^
Security 🔻		=
Network 🔻	[Camera setting]	
DDNS		
Mail	exposure mode = <auto></auto>	
FTP	min shutter speed = <8>	
HTTP	fixed shutter speed = <56>	
Motion Detection	white balance mode = <auto></auto>	
Network failure detection	white balance rgain = <57>	
Tampering	white balance bgain = $\langle 54 \rangle$	
Storage Management		
Recording	brightness value = <128>	
File Location	sharpness value = <4>	
View information	contrast value = <64>	
Log file	saturation = <64>	
User information		-
Parameters		F.
Factory Default		
Software Version		
Software Upgrade		
Maintenance		
< Back		

As the picture above shows: User: 1:1:0:1

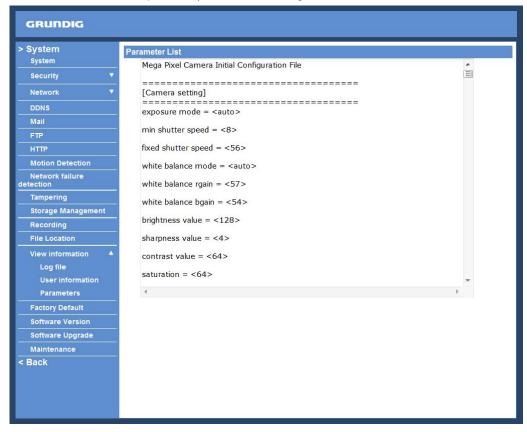
1:1:0:1 = I/O access : Camera control : Talk : Listen (see 9.2. Security)

This denotes that the user has been granted the privileges of I/O access, Camera control and Listen.

☑ I/O access	🗹 Camera control
Talk	🗹 Listen

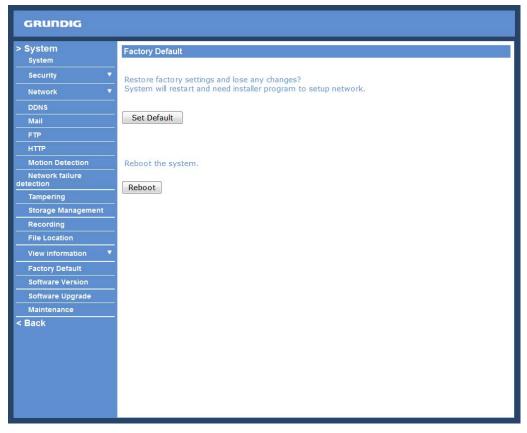
9.16. View Parameters

Click on this item to view the entire system's parameter setting.



9.17. Factory Default

The factory default setting page is shown below. Follow the instructions to reset the IP Camera to factory default setting if needed.



Set Default :

Click on the "Set Default" button to recall the factory default settings. After 30 seconds the system will restart.

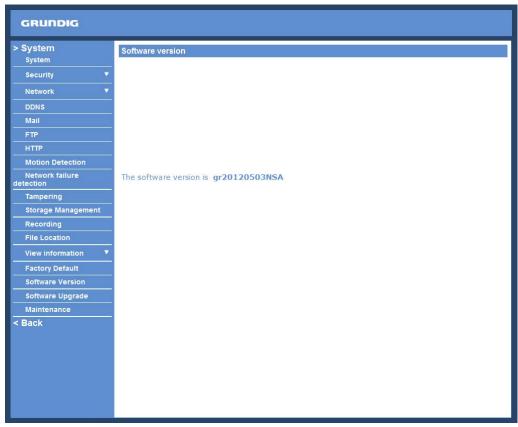
NOTE: The IP address will also be restored to default (192.168.1.1).

Reboot :

When you click on the "Reboot" button, the system will restart without changing the current settings.

9.18. Software Version

The current software version is displayed in the software version page, which is shown in the picture below.



9.19. Software Upgrade

Software upgrade can be carried out on the "Software Upgrade" page, as shown below.

GRUNDIG	
DDNS Mail FTP HTTP Motion Detection Network failure detection Tampering	Upgrade Follow These Steps To Do The Software Upgrade Step1: Upload the binary file Browse Step2: Select binary file you want to upgrade uImage+userland.img Step3: Click the upgrade button to start the upgrade process Upgrade

NOTE: Make sure the upgrade software file is available before carrying out the software upgrade.

The procedure of a software upgrade is as follows:

Step 1: Click on "Browse" and select the following binary file to be uploaded: uImage+userland.

NOTE: Do not change the upgrade file name, or the system will fail to find the file.

Step 2: Pull down the upgrade binary file list and select the file you want to upgrade; in this case, select "ulmage+userland".

Step 3: Click on "Upgrade". The system will first check whether the upgrade file exists or not, and then begin to upload the upgrade file. Subsequently, the upgrade status bar will be displayed on the page. When 100% is reached, the upgrade process is finished.

After the upgrade process is finished, the Viewer will return to the Home page.

Step 4: Close the video browser.

Step 5: Go to "Start" on your Windows desktop, activate "Control Panel", and then double-click on "Add or Remove Programs". In the "Currently installed programs" list, select "GRUNDIG Viewer" and click on the button "Remove" to uninstall the existing GRUNDIG Viewer.

Step 6: Open a new web browser, re-login the IP Camera, and then allow the automatic download of the GRUNDIG Viewer.

9.20. Maintenance

Users can export configuration files to a specified location and retrieve data by uploading an existing configuration file to the IP Camera. This is especially convenient if you want to have the same configuration for multiple cameras.

GRUNDIG	
> System System Security V Network V DDNS	Maintenance Export files Export configuration files Export
Mail FTP HTTP	Select configuration files Browse Upload
Motion Detection Network failure detection Tampering	
Storage Management Recording File Location	
View information Factory Default Software Version Software Upgrade	
Maintenance < Back	

Export:

Users can save the system settings by exporting the configuration file (.bin) to a specified location for future use. When you click on the "Export" button, the File Download window will pop up as shown below. Click "Save" and specify a desired location for saving the configuration file.



Upload:

To copy an existing configuration file to the IP Camera, please first click on "Browse" to select the configuration file, and then click on the "Upload" button for uploading.

NOTE: The cameras need to have the same software version to upload the configuration file.

10. Streaming Settings

10.1. Video Format

Video Resolution :

Under the Video Resolution section, the available video resolution formats include MJPEG and H.264. Please refer to Chapter 6. Video Resolution Setup for more combination details.

GRUNDIG	
> Streaming	Video Format
Video Format	Video Resolution :
Video Compression	H.264 + H.264 ▼
Video OCX Protocol	H.264-1 format : 1920 x 1080 (25 fps) 🔻
Video Frame Rate	H.264-2 format : 720 x 576 (25 fps) 🔻
	BNC support : N/A
Video Mask	Save
< Back	Note :
	Image attachment by FTP or E-mail will be available only while MJPEG streaming is selected.
	Text Overlay Settings :
	Include date
	Include text string:
	Save
	Video Rotate Type :
	Normal video 🔹
	Save
	GOV Settings :
	H.264-1 GOV Length : 50 H.264-2 GOV Length : 50
	H.264-3 GOV Length: 25 H.264-4 GOV Length: 25
	Save
	H.264 Profile :
	H.264-1 : Main profile ▼ H.264-2 : Main profile ▼
	H.264-3 : Main profile ▼ H.264-4 : Main profile ▼
	Save

Click on "Save" to confirm the setting.

Text Overlay Settings :

Users can select these items to display data (date/time/text) on the live video pane. The maximum length of the string is 18 alphanumeric characters.

Click "Save" to confirm the Text Overlay setting.

Video Rotation Type :

Users can change the video display type if necessary. The selectable video rotation types include Normal video, Flip video, Mirror video, 90 degree counter-/clockwise and 180 degree rotation. Differences between these types are illustrated below.

Suppose the displayed image of IP Camera is shown as the figure below.



To rotate the image, users can select "Flip video", for instance. Then the displayed image will be reversed as shown below.



The following are descriptions of different video rotation types.

- Flip video:

If you select <Flip video>, the image will be rotated horizontally.

- Mirror video:

If you select <Mirror video>, the image will be rotated vertically.

- 90 degree counter-/clockwise:

Selecting <90 degree counter-/clockwise> will inverse the image 90° counter-/clockwise. The image will only be shown with the right proportions in "Fullscreen View". Click on the Fullscreen Button (third button from the left) on the main page to enlarge the image and double-click to go back to "Normal View".

- 180 degree rotation:

Selecting the <180 Degree rotation> will inverse the image 180° counter-/clockwise.

Click "Save" to confirm the setting.

GOV Settings :

Users can set the GOV length to determine the frame structure (I-frames and P-frames) in a video stream for saving bandwidth. Longer GOV means decreasing the frequency of I-frames. The setting range for the GOV length is from 2 to 64. The default setting of GOV is 30.

Click "Save" to confirm the GOV setting.

This camera provides three H.264 streaming formats to meet the requirements from viewing devices, the surveillance system, and the network condition of the application and installation environment.

H.264 Baseline profile: Standard Efficiency Encoding Format

H.264 Main profile: Good Efficiency Encoding Format

H.264 High profile: High Efficiency Encoding Format

10.2. Video Compression

Users can specify the values for MJPEG/H.264 compression mode in the video compression page (see the picture below), depending on the application.

MJPEG compression setting (MJPEG Q (Quality) factor):

A higher value implies higher bit rates and a higher visual quality. The default setting is 35; the setting range is from 1 to 70.

Click "Save" to confirm the setting.

H.264-1 / H.264-2 / H.264-3 / H.264-4 bit rate:

The default setting of H.264-1 is 4096 kdps and of H.264-2/H.264-3/H.264-4 is 1024 kbps. The setting range for H.264-1 is from 64 to 8192 kbps and for H.264-2/H.264-3/H.264-4 it is from 64 to 2048 kbps.

Click "Save" to confirm the setting.

GRUNDIG	
> Streaming	Video Compression
Video Format	MJPEG O factor : 35
Video Compression	Save
Video OCX Protocol	H.264-1 Compression setting :
Video Frame Rate	H264-1 bit rate : 4096 kbit/s
	Save
< Back	- H.264-2 Compression setting :
Dack	H264-2 bit rate : 1024 kbit/s
	Save
	H.264-3 Compression setting :
	H264-3 bit rate : 1024 kbit/s
	Save
	H.264-4 Compression setting :
	H264-4 bit rate : 1024 kbit/s
	Save
	Compression information setting :
	Display compression information in the home page
	Save
	CBR mode setting :
	✓ enable H.264-1 CBR mode
	I enable H.264-3 CBR mode
	Save

Compression information setting :

Users can also decide whether to display compression information on the Home page. Click "Save" to confirm the setting.

CBR mode setting :

The CBR (Constant Bit Rate) mode can become the preferred bit rate mode if the available bandwidth is limited. It is important to take into account the image quality when you choose to use CBR mode. Click on "Save" to confirm the setting.

GRUNDIG	
> Streaming Video Format	Video Compression MJPEG Compression setting :
Video Compression	MJPEG Q factor : 35 Save
Video OCX Protocol	H.264-1 Compression setting :
Video Frame Rate	H264-1 bit rate : 4096 kbit/s
Video Mask	Save
< Back	H.264-2 Compression setting : H264-2 bit rate : 1024 kbit/s Save H.264-3 bit rate : 1024 kbit/s Save H.264-4 Compression setting : H264-4 bit rate : 1024 kbit/s Save Compression information setting : ✓ Display compression information in the home page Save
	✓ enable H.264-1 CBR mode ✓ enable H.264-2 CBR mode ✓ enable H.264-3 CBR mode ✓ enable H.264-4 CBR mode Save Save

10.3. Video OCX Protocol

In the Video OCX protocol setting page, users can select RTP over UDP, RTP over TCP, RTSP over HTTP or MJPEG over HTTP, for streaming media over the network. In the case of multicast networking, users can select the Multicast mode. The Video OCX Protocol page is as follows:

GRUNDIG		
> Streaming	Video OCX Protocol	
Video Format	Video OCX protocol setting :	
Video Compression	RTP over UDP	
Video OCX Protocol	RTP over RTSP(TCP) RTSP over HTTP	
an ann an an ann an ann an ann an ann an a	MJPEG over HTTP	
Video Frame Rate	Multicast mode	
Video Mask		0.0.0.0
< Back	Multicast H.264-1 video port	
	Multicast H.264-2 video port	
	Multicast H.264-3 video port	0
	Multicast H.264-4 video port	0
	Multicast MJPEG video port	0
	Multicast audio port	0
	Multicast TTL	1
	Save	
	Note:	
	This page only applies to video st	reams going to a GRUNDIG Viewer.

Video OCX protocol setting options include:

- RTP over UDP / RTP over RTSP (TCP) / RTSP over HTTP / MJPEG over HTTP (Select a mode according to your data delivery requirements.)

- Multicast Mode:

Enter all required data, including multicast IP address, H.264 video port, MJPEG video port, audio port and TTL into each blank.

Click on "Save" to confirm the setting.

10.4. Video Frame Rate

Video frame skipping is for saving bandwidth if necessary. The setting page is shown below.

GRUNDIG	
CRUNDIG Streaming Video Format Video Compression Video OCX Protocol Video Frame Rate Video Mask <back< th=""><th>Video Frame Rate MJPEG Frame Rate Setting: MJPEG frame rate : 25 Save H264-1 Frame Rate Setting: H264-1 frame rate : 25 Save H264-2 Frame Rate Setting: H264-2 frame rate : 25 Save H264-3 Frame Rate Setting: H264-3 Frame Rate Setting:</th></back<>	Video Frame Rate MJPEG Frame Rate Setting: MJPEG frame rate : 25 Save H264-1 Frame Rate Setting: H264-1 frame rate : 25 Save H264-2 Frame Rate Setting: H264-2 frame rate : 25 Save H264-3 Frame Rate Setting: H264-3 Frame Rate Setting:
	H264-3 frame rate : 25 Save H264-4 Frame Rate Setting: H264-4 frame rate : 25 Save

MJPEG / H.264-1 / H.264-2 / H.264-3 / H.264-4 Frame Rate:

The default setting of MJPEG/H.264-1/H.264-2/H.264-3/H.264-4 Frame Rate is 25 fps. The setting range is from 1 to 25.

Click on <Save> to confirm the setting.

NOTE: A lower frame rate will decrease video smoothness.

10.5. Video Mask

There are five video masks which can be set by the users.

GRUNDIG	
> Streaming	Mask
Video Format Video Compression Video OCX Protocol	Active mask function Enable to display Mask1 Enable to display Mask2 Enable to display Mask3
Video Frame Rate Video Mask	Enable to display Mask5 Enable to display Mask5
< Back	Mask setting Mask color black Save

Active Mask Function :

- Add a Mask:

When you check a Video Mask checkbox, a red frame will come out in the Live Video pane at the right side. Use the mouse to adjust the mask's size and drag and drop the frame to place it on the target zone.

NOTE: It is suggested to set the Video Mask twice as big as the object.

- Cancel a mask:

If you uncheck the checkbox of the Video Mask that is meant to be deleted, the selected mask will disappear from the Live Video pane instantly.

Mask Setting :

- Mask colour:

The selection of Mask colours includes red, black, white, yellow, green, blue, cyan, and magenta.

Click on "Save" to confirm the setting.

11. Camera Settings

The picture below is the camera configuration page. Details of each parameter setting are described in the following subsections.



11.1. Exposure Setting

Display of the Exposure pull-down menu:



The exposure is the amount of light received by the image sensor and is determined by the width of lens diaphragm opening, the amount of exposure by the sensor (shutter speed) and other exposure parameters. With this item, users can define how the Auto Exposure function works.

Auto Mode :

- Auto Shutter Mode:

This function is used to control the shutter speed and to adjust the iris automatically according to the light intensity. It is also effective if a fixed iris lens is being used. The minimum shutter speed range is configurable from 1/1.5 to 1/425 sec.

Manual Mode:

- Fixed Shutter Mode:

In this mode, a fixed shutter speed can be selected from the drop-down menu. The shutter speed range is from 1/10000 to 1/1.5 sec. With 18 options depending on the camera model. Users can choose a suitable shutter speed according to the environmental illumination.

Click on < \checkmark > to confirm the new setting.

11.2. White Balance Setting

Display of the White Balance pull-down menu:

White Balance	
Auto	
O ATW	
Manual	
Rgain: 57	
[0127]	
Bgain: 54	
[0127]	
	\checkmark

To display natural colours, the camera needs to know the reference colour temperature of the light source. Based on this reference colour temperature the camera will calculate the correct values for all colours. The camera can perform a measurement by itself or the user can set up the reference colour temperature manually. The scale unit of the colour temperature is Kelvin [K]. The following list shows the colour temperature of some light sources for reference.

Users can select one of the White Balance Control modes according to the operating environment.

Light Sources :

Cloudy Sky (Colour Temperature: 6,000 to 8,000 K) Noon Sun and Clear Sky (Colour Temperature: 6,500 K) Household Lighting (Colour Temperature: 2,500 to 3,000 K) 75-watt Bulb (Colour Temperature: 2,820 K) Candle Flame (Colour Temperature: 1,200 to 1,500 K)

Auto Mode :

The Auto Balance White mode is suitable for an environment with a light source having a colour temperature range from 2700 ~ 7600K.

ATW Mode (Auto Tracking White Balance) :

With the Auto Tracking White Balance function, the white balance in a scene will be automatically adjusted while temperature colour is changing. The ATW Mode is suitable for environments with a light source having a colour temperature in the range roughly from 2450 ~ 10500K.

Manual Mode :

In this mode, users can change the White Balance value manually. Users can select a number between 0 ~ 127 in the "R-Gain/B-Gain" item to gain the red/blue illuminant on the Live Video Pane. Click on < ✓ > to confirm the new setting.

11.3. Picture Adjustment

Display of the Picture Adjustment pull-down menu:

Picture Adjus	tment 🔺
Brightness	+3 🔻
Sharpness	+5 -
Contrast	+4 •
Saturation	+2 •
Hue	+2 •
	\checkmark

Brightness:

The users can adjust the image's brightness by adjusting the item. Please select a number from the range of -12 to +13. To increase the video brightness, select a bigger number. Click on < \checkmark > to confirm the new setting.

Sharpness:

Increasing the sharpness level can make the image look sharper. Please select a number from the range of +0 to +15. This function especially enhances the object's edges.

Click on $\langle \sqrt{\rangle}$ to confirm the new setting.

Contrast:

The camera image contrast level is adjustable. Please choose from a range of -6 to +19. Click on < \checkmark > to confirm the new setting.

Saturation:

The camera image saturation level is adjustable. Please select from a range of -6 to +19. Click on < \checkmark > to confirm the new setting.

Hue:

The camera image hue level is adjustable. Please select from a range of -12 to +13. Click on < \checkmark > to confirm the new setting.

11.4. Backlight Setting

Based on various lighting situations, users can turn the function of Backlight Compensation on or off to optimise the video quality. The default value of Backlight is: Off. Click on < V > to confirm the new setting.



11.5. Digital Zoom Setting

The camera's Digital Zoom is adjustable from x2 to x8. Click on < \checkmark > to confirm the new setting.



11.6. WDR Function

The Wide Dynamic Range (WDR) function is for solving high contrast or changing light issues to improve the video display. The WDR is adjustable from Low, Mid to Hi. A higher level of WDR represents a wider dynamic range, so that the IP Camera can catch a greater scale of brightness.

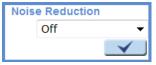
Click on < \checkmark > to confirm the new setting.



11.7. Noise Reduction

The IP Camera provides multiple <Noise Reduction> options for delivering an optimised image quality especially in extra low-light conditions.

The different level options for 3D Noise Reduction (3DNR) include Low, Mid and Hi. A higher level of 3DNR generates relatively enhanced noise reduction.



The proprietary Smart Picture Quality (SPQ) video processing method can drastically minimise motion blur and reduce the noise especially in a low-light environment. The combination of SPQ and 3DNR at different levels further yields exceptional video performance in various conditions.

The Noise Reduction function is configurable with the following options:

- 3DNR Low
- 3DNR Mid
- 3DNR Hi
- SPQ
- SPQ + 3DNR Low
- SPQ + 3DNR Mid
- SPQ + 3DNR Hi

Click on < \checkmark > to confirm the new setting.

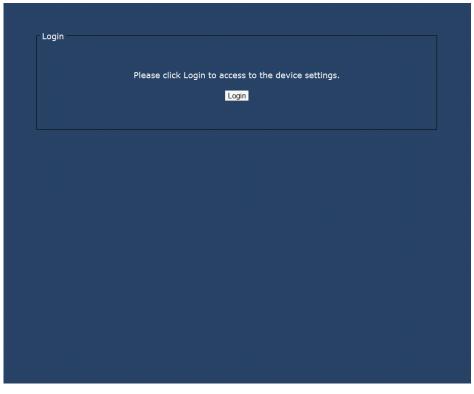
11.8. TV System Setup

Select the video format that matches the present TV system. Click on < \checkmark > to confirm the new setting.



12. Logout

When you press the "Logout" tab at the top of the page, the login window will pop up. This permits login with another user name.



13. CMS Software Introduction

The Central Management System (CMS) software bundles IP cameras and analogue cameras that are connected to the network via the Video Server into one system. Offering powerful functionalities via intuitive interface, it is a centralised monitoring solution for your video surveillance equipments.

The GRUNDIG CMS Software gives the user access to monitor multiple IP Cameras and Video Servers, and allows the user to monitor simultaneously 16 sites per group (up to 10 groups) within several clicks.

For further information on the CMS software, please refer to the supplied CD.



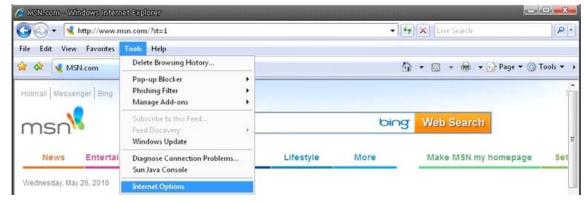
14. Internet Security Settings

If the ActiveX control installation is blocked, please either set the Internet security level to default or change ActiveX controls and plug-in settings.

Internet Security Level : Default

Step 1: Start the Internet Explorer.

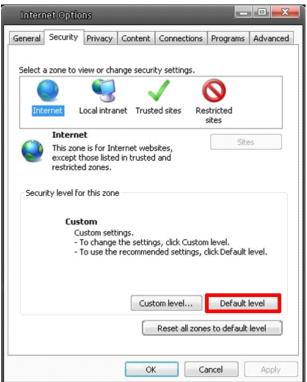
Step 2: Select <Tools> from the main menu of the browser. Then click on <Internet Options>.



Step 3: Click on the <Security> tab, and select <Internet>.

Interr	ret Optio	ns				
General	Security	Privacy	Content	Connectio	ns Progra	ams Advanced
Select a	a zone to v	iew or cha	ange secur	ity settings		
		•	•		\bigcirc	
Inte	ernet L	ocal intra	net Trust	ed sites	Restricted sites	
-	Interne	t			[Sites
		hose lister	ernet web d in trusted			Siles
Secur	ity level fo	r this zone	•			
	Cust	om				
		istom sett		the second		
				gs, click Cus Ided setting	scom level. ps, click Defa	ault level.
			Cust	tom level	Def	ault level
				Reset all z	ones to def	ault level
					Casad	Analy
			O		Cancel	Apply

Step 4: Down the page, click on "Default level..." and then click "OK" to confirm the setting. Close the browser window, and open a new one later when accessing the IP Camera.



ActiveX Controls and Plug-in Settings :

Step 1~3: Please refer to the previous section above.

Step 4: Down the page, click on "Custom level..." (see the picture below) to change ActiveX controls and plug-in settings.



The Security Settings screen is displayed as shown below:

100			
Instant	eX controls and plug-ins	1.00	^
	Allow previously unused ActiveX	controls to run	without prom
5) Disable 9 Enable		-
	Inable Scriptlets		
L	Disable		
2) Enable		
	Prompt		
-	Automatic prompting for ActiveX	controls	
-	Disable		
0	Enable		
🥥 E	inary and script behaviors		
-	Administrator approved		
(🔵 Disable		
1.000	Enable		
A DATE	Vicolay video and animation on a III	wahnana that	door not use
Takes et	fect after you restart Internet E	xplorer	
set custo	om settings		
eset to:	Medium-high (default)	-	Reset
	[readant right (actually		

Step 5: Under "ActiveX controls and plug-ins", set ALL items (as listed below) to <Enable> or <Prompt>. Please note that the items may vary depending on the Internet Explorer version you are using.

ActiveX controls and plug-in settings:

- 1. Allow previously unused ActiveX controls to run without prompt
- 2. Allow Scriptlets
- 3. Automatic prompting for ActiveX controls
- 4. Binary and script behaviors
- 5. Display video and animation on a webpage that does not use external media player
- 6. Download signed ActiveX controls
- 7. Download unsigned ActiveX controls
- 8. Initialize and script ActiveX controls not marked as safe for scripting
- 9. Run ActiveX controls and plug-ins
- 10. Script ActiveX controls marked as safe for scripting

Step 6: Click on <OK> to accept the settings and to close the Security screen.

Step 7: Click on <OK> to close the Internet Options screen.

Step 8: Close the browser window, and open a new one later for accessing the IP Camera.

15. GRUNDIG Viewer Download Procedure

The procedure of the GRUNDIG Viewer software download is specified as follows:

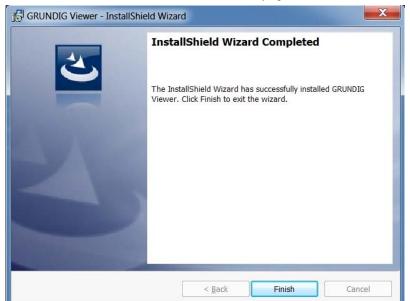
Step 1: In the GRUNDIG Viewer installation page, click "Next" to start the installation.



Step 2: Setup starts. Please wait for a while until the loading bar runs out.

	i Viewer - InstallShield Wizard
_	GRUNDIG Viewer ram features you selected are being installed.
1 1 1	Please wait while the InstallShield Wizard installs GRUNDIG Viewer. This may take several minutes.
	Status:
InstallShield –	< Back Next > Cancel

Step 3: Click on "Finish" to close the GRUNDIG Viewer installation page.



Then, the IP Camera's Home page will be displayed as follows:



NOTE: Please note that the function buttons may vary depending on the camera model.

16. Install UPnP Components

Please follow the instructions below to install UPnP components. (The procedure is for Windows XP, for other systems please refer to the corresponding manuals.)

Step 1: Go to "Start", click on "Control Panel", and then double-click on "Add or Remove Programs".



Step 2: Click on "Add/Remove Windows Components" in the Add or Remove Programs page.

🔂 Add ar Remi	ove Programs				×
5	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name		•
C <u>h</u> ange or Remove	🙂 µTorrent		Size	0.21MB	-
Programs	竭 Alky for Applications (Windows XP)		Size	2.65MB	
14	Atomic Alarm Clock 5.4		Size	5.14MB	
Add New	CCleaner (remove only)		Size	0.98MB	
Programs	🔗 Gadget Installer		Size	0.41MB	
F	🤣 IconPackager		Size	88.62MB	E
Add/Remove	100 IZArc 3.81		Size	9.30MB	
<u>W</u> indows Components	률 Java(TM) 6 Update 5		Size	137.00MB	
components	B Microsoft .NET Framework 1.1				
()	B Microsoft .NET Framework 2.0 Service Pack 2		Size	185.00MB	
Set Program Access and	詞 Microsoft .NET Framework 3.0 Service Pack 2		Size	178.00MB	
Defaults	腸 Microsoft .NET Framework 3.5 SP1		Size	28.22MB	
	🔁 Microsoft Office 2007 Recent Documents Gadget		Size	0.46MB	
	S Microsoft Office Professional Edition 2003		Size	204.00MB	
	腸 Microsoft User-Mode Driver Framework Feature Pack 1.0				
	詞 Microsoft Visual C++ 2005 Redistributable		Size	5.21MB	
	🚳 Microsoft Windows		Size	3.77MB	
	Open Command Prompt Shell Extension				
	闘 PL-2303 USB-to-Serial		Size	1.04MB	
	Renesas Flash Development Toolkit (v4.05)	 	Size	78.67MB	Ŧ

Step 3: Select "Networking Services" from the Components list in the Windows Components Wizard window, and then click on "Details".

indows Components You can add or remove com	ponents of Windows XP.		
	ent, click the checkbox. A sh installed. To see what's inclu		
MSN Explorer		20.7 MB	
Retworking Services		0.3 MB	
		0.0 MB	-
Other Network File and	nd Print Services	0.0 MD	
Statement and the statement of the state	nd Print Services	0.0 MB	
C ther Network File and			*
Dither Network File an Dither Network File Dither Dither Network File Dither N		0.0 MB 0.0 MB	↓
Dither Network File an Dither Network File Dither Dither Network File Dither N	ates ety of specialized, network-rel	0.0 MB 0.0 MB	

Step 4: Select "UPnP User Interface" in the Networking Services' subcomponents list and then click on "OK".

Network	ing Services				x
of the compo		ent, click the check b alled. To see what's ir			
-		ing services: evice Discovery and C	Control Client	0.0 MB	1
D B Peer-	이 이 것이 많은 것 같아? 것 같아?			0.0 MB	
				0.0 MB	
	le TCP/IP Serv	ices		0.0 MB	
	User Interface			0.2 MB	
Description: Total disk spa Space availa	network. Also ace required:	s in My Network Place , opens the required V 56.5 MB 14365.1 MB			
эрасе ачана		14303.1 MD	OK	Cancel	

Step 5: Click on "Next" in the Windows Components Wizard page.

indows Components Wiza	ard	
indows Components You can add or remove comp	conents of Windows XP.	
	ent, click the checkbox. A sha installed. To see what's inclu	
Components:		
MSN Explorer		20.7 MB 🔺
💌 🚉 Networking Services		0.3 MB
Cher Network File an	nd Print Services	0.0 MB
 Outlook Express 		0.0 MB
		0.0 MB 👻
	etv of specialized, network-rela	ted services and protocols.
Description: Contains a varie		
Description: Contains a varie Total disk space required: Space available on disk:	56.5 MB 14365.2 MB	Details

Step 6: Click on "Finish" to complete the installation.



17. Deleting the Existing GRUNDIG Viewer

Users who have installed the GRUNDIG Viewer for 1.3 Megapixel Series IP Cameras on the PC need to delete the existing GRUNDIG Viewer first from the PC before accessing this IP Camera.

Deleting the GRUNDIG Viewer :

Click on "Control Panel", and then click on "Add or Remove Programs". In the "Currently installed programs" list, select "GRUNDIG Viewer" and click the button "Remove" to uninstall the existing GRUNDIG Viewer as shown in the figure below.

Edit View Favorites Tools	Help					
🕢 🔺 📑 🕨 Control Panel				• 4• Sear	ch	
- Tree 🚾 Thombnails 🖥	loons	🗰 Details 💠 Tile 📑 Folder Options 💌 🍧 New Folder 😕		_		
	Accessibility Opti Add Hardware	ons				
	Add or Remove P Administrative To					
Switch to Category View	Administrative re					- 0
Also 🔺		and the second se				and the second second
Windows Update Help and Support		Currently installed programs:	12	Show up <u>d</u> ates	Sort by: Name	
	Change or Remove	D pTorrent			Size	0.21MB
	Programs	Alky for Applications (Windows XP)			Size	2.65MB
		Atomic Alarm Clock 5.4			Size	5.14MB
	Add New	CCleaner (remove only)			Sae	0.98MB
	Programs				Sae	5.91MB
	1	Click here for support information.			Used	rarely
	Add/Remove	To remove this program from your computer, click Remove.			1	Remove
	<u>W</u> indows Components	🚰 Gadget Installer			Size	0.41MB
		😕 IconPackager			Size	\$8.62MB
	Set Program Access and	1 IZArc 3.81			Size	9.30MB
		🚠 Java(TM) 6 Update 5			Size	137.00MB
	Defaults	B Microsoft .NET Framework 1.1				
		Hicrosoft .NET Framework 2.0 Service Pack 2			Size	185.00MB
		Hicrosoft .NET Framework 3.0 Service Pack 2			Size	178.00MB
		Hicrosoft .NET Framework 3.5 SP1			Size	28.22MB
		B Microsoft Office 2007 Recent Documents Gadget			Size	0.46MB
		B Microsoft Office Professional Edition 2003			Size	204.00MB
A		🕼 Microsoft User-Mode Driver Framework Feature Pack 1.0				
		Hicrosoft Visual C++ 2005 Redistributable			Size	5.21MB

Deleting Temporary Internet Files :

To improve the browser performance, it is suggested to clean up all the files in the Temporary Internet Files. The procedure is as follows (for other web browsers please read the corresponding manuals):

STEP 1: Click on the "Tools" tab and select the option "Internet Options".

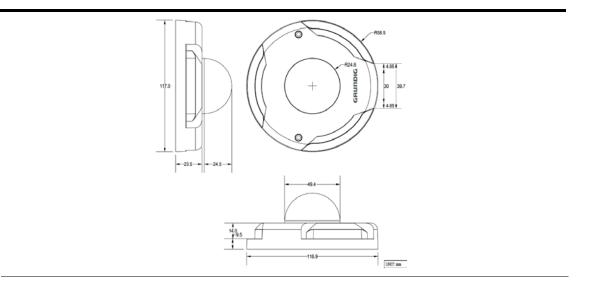
File Edit View Favorites	Tools Help			
🚖 🏟 🚼 Google	Delete Browsing History			
	Pop-up Blocker			
	Phishing Filter	\mathbf{C}		
	Manage Add-ons		ogle	
	Subscribe to this Feed Feed Discovery			
	Windows Update		O	
	Diagnose Connection Problems			
	Sun Java Console			
	Internet Options	1		1
		Google Search	I'm Feeling Lucky	
				4
	Find o	it where to watch the	World Cup with Goog	le Mans
	11100	at where to watch the	Trond out with Out	lie maps

STEP 2: Click on "Delete" in the first pop-up window. Then tap "Delete Files" in the "Temporary Internet files" section in the next pop-up window.

Seneral Security Privacy Content Connection	ons Programs Advanced
Home page	
To create home page tabs, type each	address on its own line.
http://www.google.com/	*
Use <u>c</u> urrent Use de <u>f</u> a	ault Use <u>b</u> lank
Browsing history	
Delete temporary files, history, cookie and web form information.	es, saved passwords,
Delete.	<u>S</u> ettings
Search	
Change search defaults.	Settings
Tabs	
Change how webpages are displayed tabs.	in Settings
• ****	
Appearance	
Colors Languages Font	Acc <u>e</u> ssibility
ОК	Cancel Apply
ОК	Cancel Apply
OK C	Cancel Apply
Delete Browsing History	
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that	
Delete Browsing History Temporary Internet Files	
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing.	
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Ecookies Files stored on your computer by websites to	
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies	Delete files
Delete Browsing Histony Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information.	Delete files
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Ecookies Files stored on your computer by websites to	Delete files
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History	Delete files
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History	Delete files Delete cookies Delete history
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History List of websites you have visited. Form data Saved information that you have typed into	Delete files
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History List of websites you have visited. Form data	Delete files Delete cookies Delete history
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History List of websites you have visited. Form data Saved information that you have typed into	Delete files Delete cookies Delete history
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History List of websites you have visited. Form data Saved information that you have typed into forms. Passwords Passwords History Passwords File automatically filed in when	Delete files Delete cookies Delete history Delete forms
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History List of websites you have visited. Form data Saved information that you have typed into forms. Passwords Passwords that are automatically filled in when you log on to a website you've previously	Delete files Delete cookies Delete history Delete forms
Delete Browsing History Temporary Internet Files Copies of webpages, images, and media that are saved for faster viewing. Cookies Files stored on your computer by websites to save preferences such as login information. History List of websites you have visited. Form data Saved information that you have typed into forms. Passwords Passwords History Passwords File automatically filed in when	Delete files Delete files Delete history Delete forms

Specifications GCI-K1812W	1/27" CMOC Orreiticity 2 Managinal	
Image Sensor	1/2.7" CMOS Omnivision, 2 Megapixel	
Pixels - Total	1920(H) x 1080(V)	
Sensitivity Colour	0.6 Lux@F1.5(IRE50), 0.1 Lux@F1.5(IRE30)	
Lens Focal Length	4 mm	
Viewing Angle	78°	
Motion Detection	On/ Off/ Sensitivity/ Area setting	
Privacy zones	5 zones, rectangle	
White Balance	ATW, AWB, Manual	
Shutter Speed	1 sec to 1/10,000 sec	
Web Browser	MS Internet Explorer 6.0 (or higher), Firefox, Google Chrome, Safari	
Number of Clients	Up to 20 user	
Video Compression	H.264, MJPEG	
Video Resolution	Full HD 1080p/ SXGA/ HD 720p/ XGA/SVGA/ 4CIF/ VGA/ CIF	
Video Streaming	H.264 Only, MJPEG Only, H.264+H.264, H.264+MJPEG, H.264+H.264+H.264, H.264+H.264+MJPEG, H.264+H.264+H.264+H.264 H.264+H.264+H.264+MJPEG	
Network Protocol	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, DHCP, PPPoE, UPnF SMTP, ICMP, IGMP, SNMP, IEEE802.1x, QoS, ONVIF	
SD memory	Micro SD/SDHC	
Alarm Event	Motion Detection or Schedule: Image transfer or alarm message by FTP, Image transfer or alarm message by E-mail, recording on SD- card and send HTTP notification	
Input/Output sockets	RJ-45, Micro SD Card Slot	
Firmware Upgrade	Firmware upgrade by Web Browser	
Configuration	Upload & Download configuration on remote PC	
Protection Rating	IP66	
Operating Temperature	-10°C ~ +50°C	
Regulation	CE, FCC, RoHS Compliant	
Supply Voltage	PoE IEEE 802.3af	
Languages	English, German, French, Italian, Russian	
BLC	On/Off	
WDR	High/Medium/Low	
Digital Noise Reduction (DNR)	3DNR,SMR	
Tampering Alarm	On/Off	
Digital Zoom	Off ~ 8x	
Power Consumption	3.5 W	
Weight	0.18 kg	

Dimensions



GCI-K1812W	2 Megapixel Full HD Flat Fixed Dome IP- Camera 4mm Soft D/N
	rtified that the products meet the standards in relevant provisions:
	tive 2004/108/EC irective 2006/95/EC
Applied harmo	onised standards and technical specifications:
AS/NZS CISPR	Procedure EMI: 22: 2006, EN55022 CLASS A: 2006 + A1: 2007 2006 + A2: 2009, EN61000-3-3: 2008
AS/NZS CISPR EN 50130-4: 1 IEC/EN 61000- IEC/EN 61000-	995 + A1: 1998 + A2: 2003, -4-2: 2008, IEC/EN 61000-4-3: 2008, -4-4: 2004, IEC/EN 61000-4-5: 2006 -4-6: 2009, IEC/EN 61000-4-8: 2009,
ASP AG Lüttringhause 42897 Remsch Germany	
Remscheid, 18	3.05.2012
h. Byseld	welt