



XL-ICA-361M1C

1,3 MegaPixel IP Camera

User's Guide





If the product is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

Please read the instructions carefully for correct use of the product and preserve it for reference purposes. This specification is subject to change without any prior notice to improve the quality.

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Introduction

This is a megapixel network camera which uses an 1/3-inch megapixel progressive scan SONY EXview HAD CCD. It features dual codec (MPEG4 / MJPEG), along with true day and night function. Moreover, it is a weatherproof all-in-one camera with 30 IR LEDs and a tri-axis bracket.

Built-in MPEG4, MJPEG CODEC and streaming server, the advantage of this camera allow you to monitor real time image from a remote location via internet. This camera supports both static IP and dynamic IP, and can change communication port, resulting in one IP address supporting multiple servers.

It also supports CMS(Central Monitoring System), various services and features weather-proof for outdoor use without extra device.

<Caution>

Software, server and service may be changed according to change of policy or may be stopped without prior notification. Appearance, function and specification may be changed without prior notification. Our company assumes no responsibility for visible or invisible loss resulted from changes in policy or products.

Safety Cautions

- ◆ This camera may be damaged by electrical and physical shock.
Use regulated 12V DC, 1A power supply. Do not throw or drop it onto floor.
- ◆ This camera can be used outdoor. But if it is used outdoor, it is required to use the sunvisor and avoid direct light from the sun. Do not use it under water.
- ◆ In case it is installed at high location, be sure to mount securely to prevent the unit from falling below.
- ◆ In case the unit fails, DO NOT try to disassemble the product.
Contact or consult the distributor or an authorized technician for after-sales service.
Warranty void for the product disassembled without an authorization from the distributor or an authorized technician.
- ◆ All responsibility by using this unit is on the user.

Chapter 1.

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Chapter 1. Package

1.1 Package

1.1.1 Package

Package of Products is composed of camera, screw, user manual, software CD, cross cable(see below). Please check before starting installation.

If there are any missing, please contact the shop where you purchased.

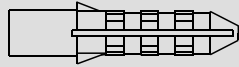
The cross cable should be used only for pre-view of video before set-up and change of network information.

[Caution] This manual is based on Microsoft Windows XP. So, there would be the Difference according to operating system.

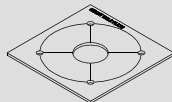
Please see the package as follows.



1.1.2 Accessories for installation



ANCHOR 6x30 4

SCREW 4x35 TP1 BIND
SUS 4EASCRW DRIVER TORX
T10, 1EAHEXAGON WRENCH
3,0mm L TYPE 1EABOLT 1/4"-20UNC
L=6, 1EA

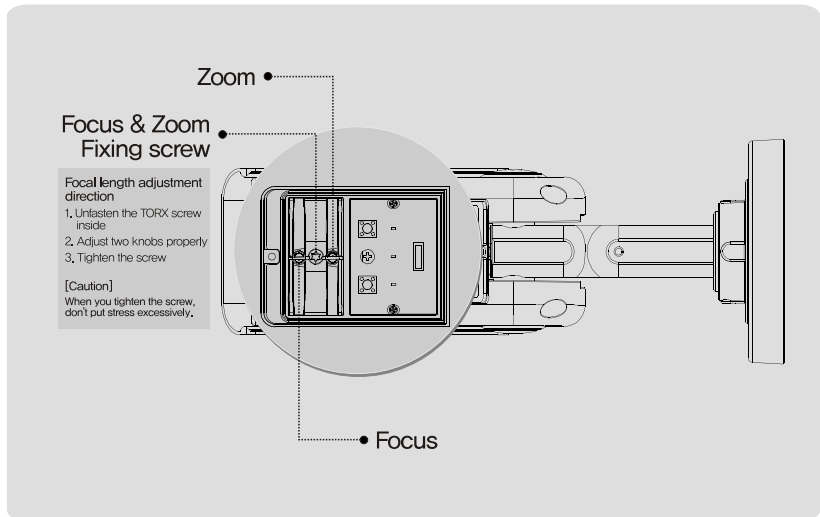
MOUNT HOLE PLATE

1.2 CAMERA FEATURES

- 1) Firmware upgrading and function controlling are available by network.
- 2) Built-in 1.3 Mega pixel 1/3" progressive Sony EXview HAD CCD.
- 3) This camera has a mechanical exchange of two filters with Sense up function to receive the maximum available light at night.
- 4) 40m visible range at night with 30pcs of IR LEDs(Outdoor : 30m).
- 5) This product is weather-proof to resist rain, snow and other weather factors.
- 6) Wall and ceiling mount are available by 3-axis bracket.

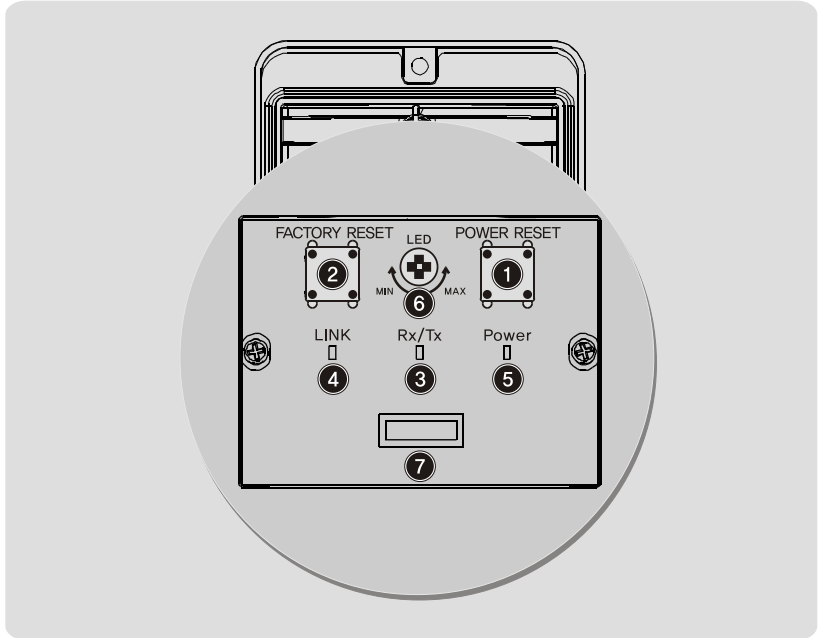
1.3 CAMERA SETUP

1.3.1 Focus adjustment



- (1) Turn the fixing screw in a counterclockwise to loosen the screw.
- (2) Adjust the lever when you get the images you want.
(Refer to OSD Type 1 in Chapter 4. System Setting to see the information regarding current focus.)
- (3) Turn the fixing screw in a clockwise tightly to fix the screw.

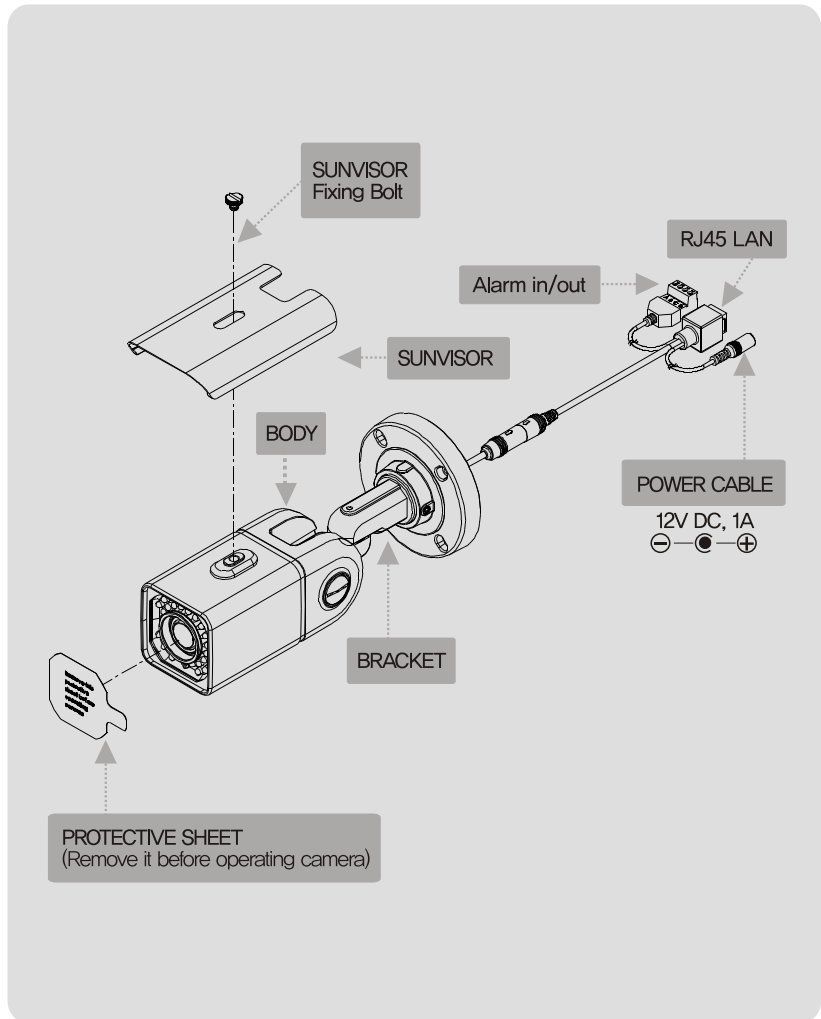
1.3.2 Control board



- ① **POWER RESET** : Press the button to reset when the unit is not working normally.
- ② **FACTORY RESET** : Turn on the power and wait 2 minutes, Press the button for 3 seconds to set the ID and Passwords for administration and IP setting values to the Factory default.
[Reference] Please refer to 2.2 Video Check in Chapter 2 and Chapter 4. System Setting regarding default value.
- ③ **Rx/Tx** : Light would turn on when the user connect by the network.
- ④ **Link** : Light would turn on when the LAN cable is connected to the unit.
- ⑤ **Power** : Light would turn on when power is on.
- ⑥ **LED** : Increase or decrease the volume of light from LEDs, Adjust the volume of light according to the distance between the camera and the object.
- ⑦ **Connector for upgrading** : It is used for upgrading the product function and after-sales services.

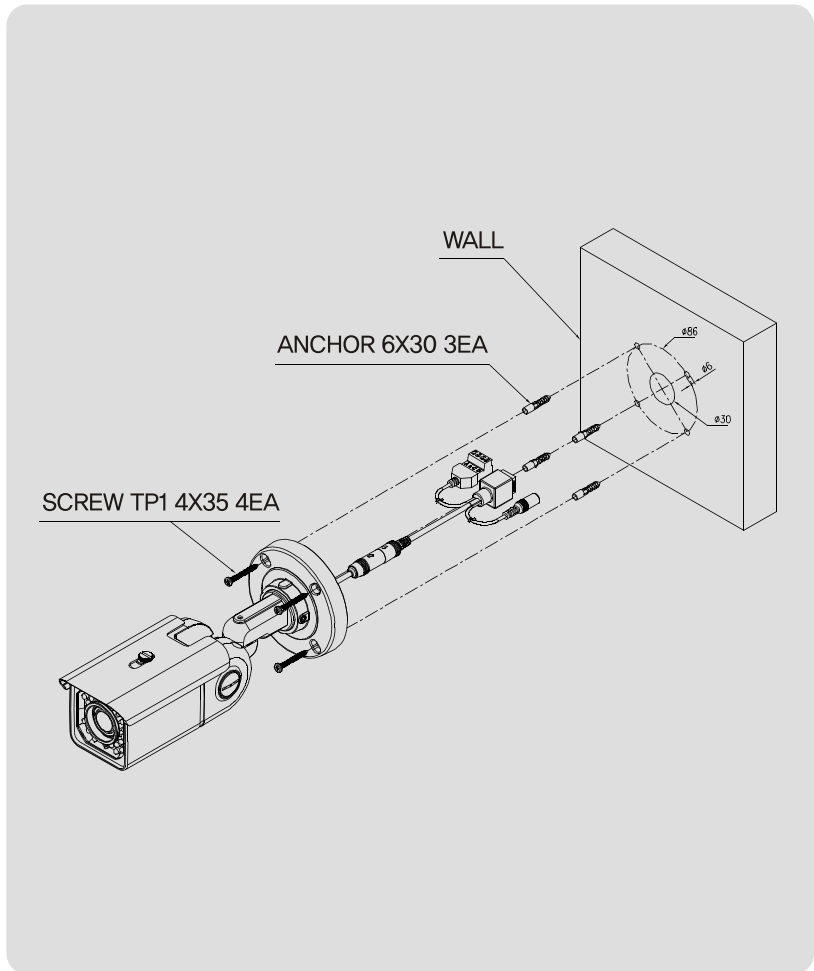
1.4 How To Install

1.4.1 Configuration



[Reference] Please refer to 1.5.5, regarding 'Alarm In/Out'.

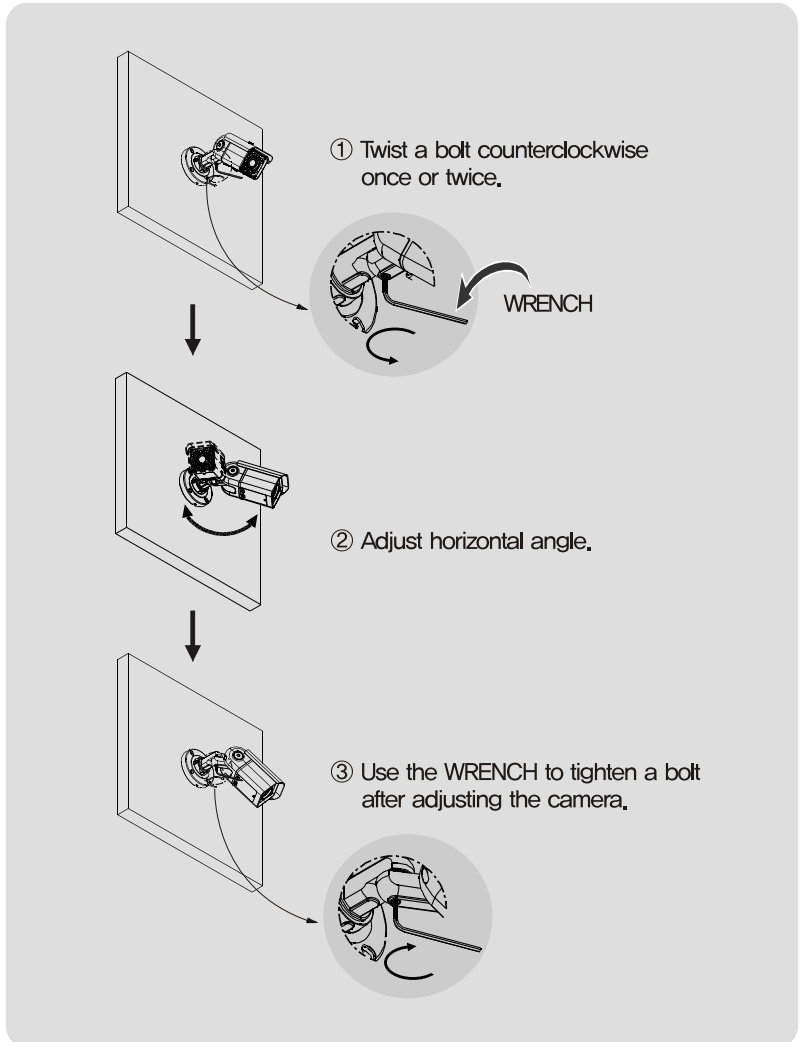
1.4.2 WALL MOUNT(Installation)



1. Make a hole of $\text{Ø}30\text{mm}$ in diameter for passing cable.
2. Using the mount hole plate, drill four holes on the wall.
3. Insert the anchors.
4. Fix the screws.

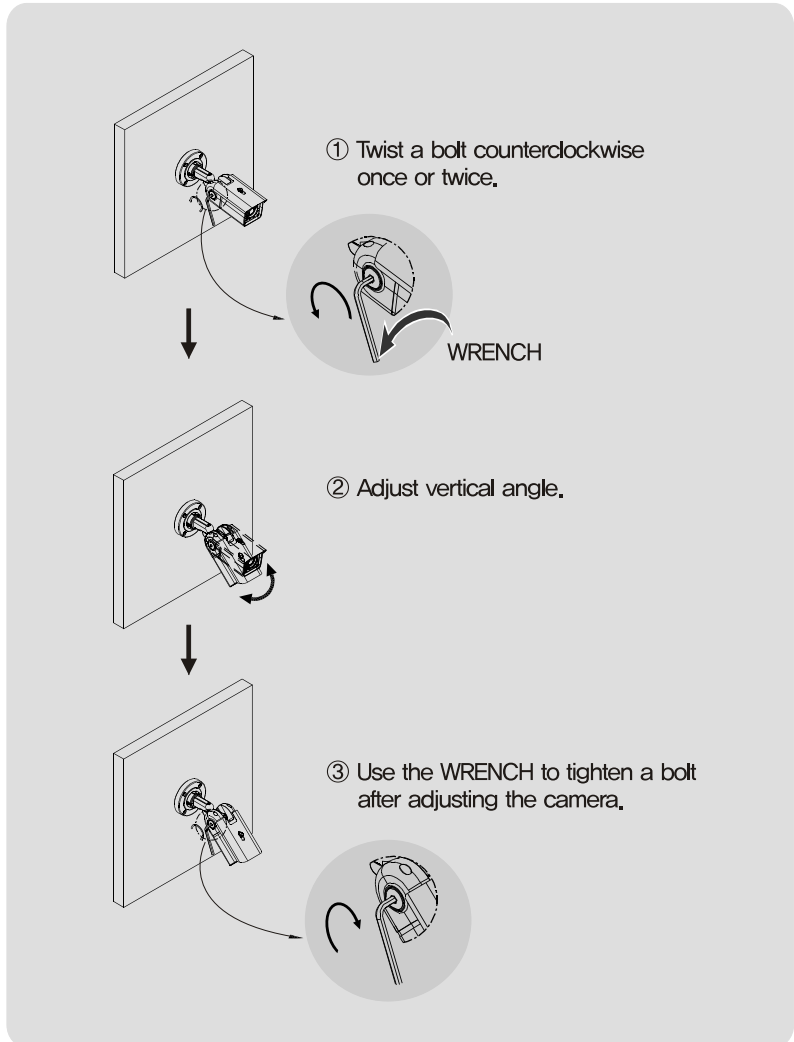
1.4.2.1 WALL MOUNT(Adjust horizontal angle)

- 1) Loosen a bolt to adjust horizontal angle of the camera.
- 2) Use the WRENCH to tighten a bolt after adjusting the camera.

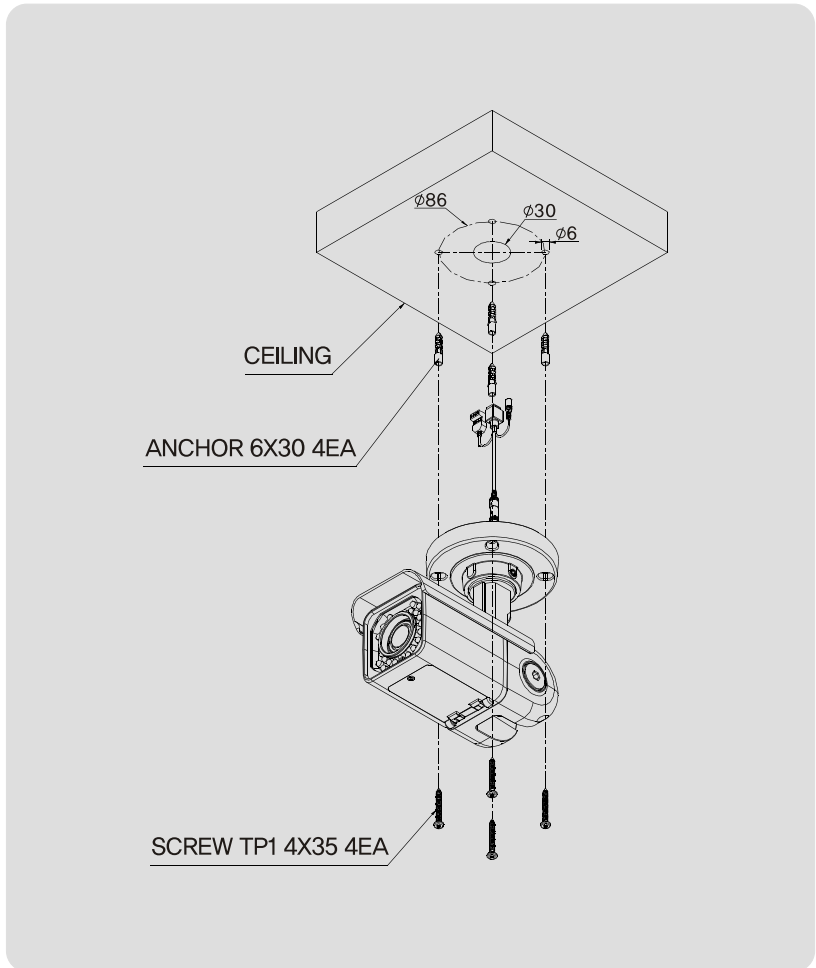


1.4.2.2 WALL MOUNT(Adjust vertical angle)

- 1) Loosen a bolt to adjust vertical angle of the camera.
- 2) Use the WRENCH to tighten a bolt after adjusting the camera.



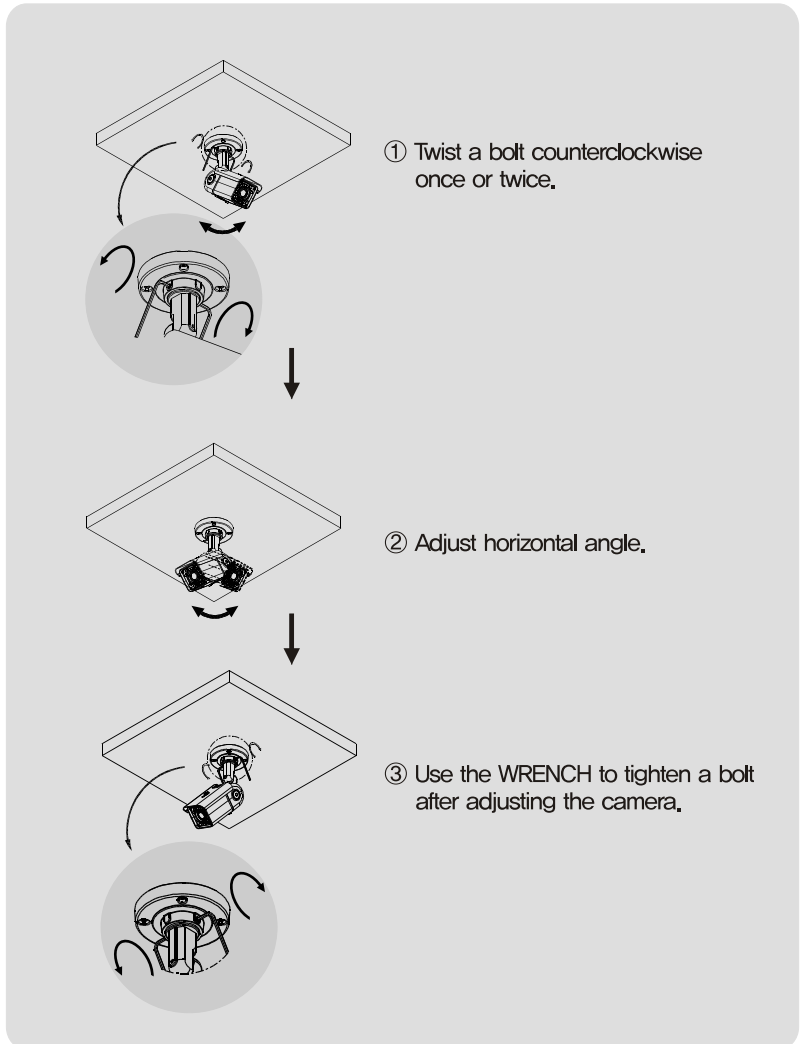
1.4.3 CEILING MOUNT(Installation)



1. Make a hole of $\varnothing 30$ mm in diameter for passing cable.
2. Using the mount hole plate, drill four holes on the ceiling.
3. Insert the anchors.
4. Fix the screws.

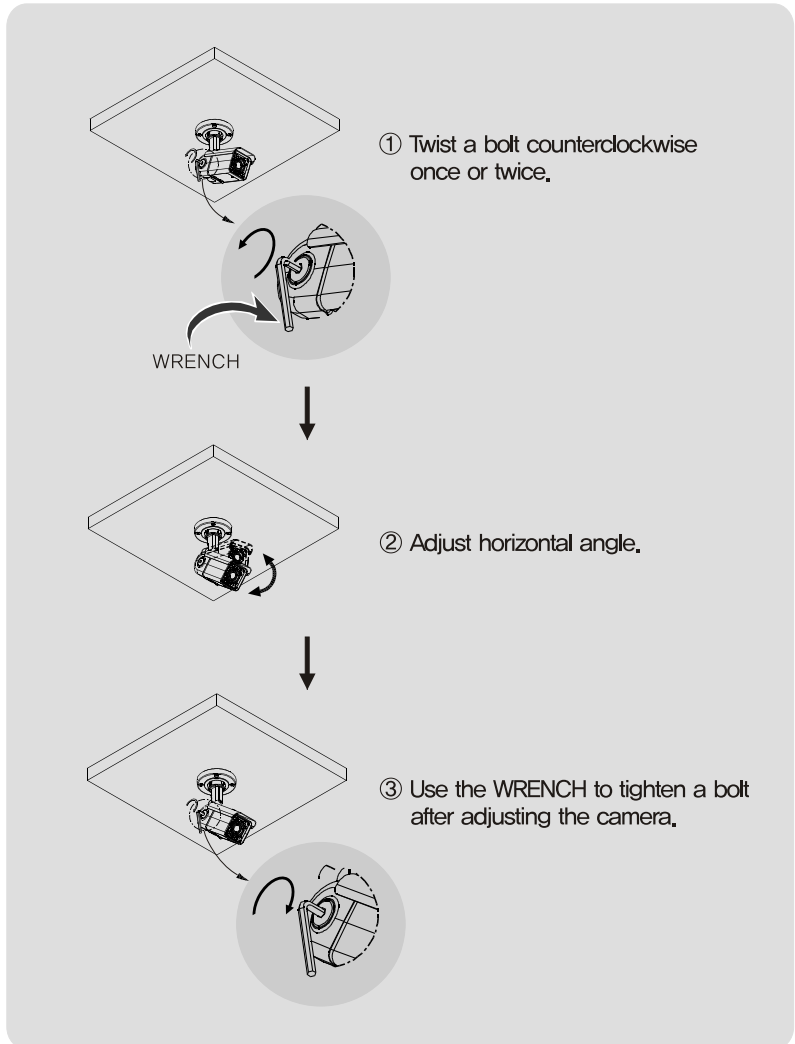
1.4.3.1 CEILING MOUNT(Adjust horizontal angle)

- 1) Loosen a bolt to adjust horizontal angle of the camera.
- 2) Use the WRENCH to tighten a bolt after adjusting the camera.



1.4.3.2 CEILING MOUNT(Adjust vertical angle)

- 1) Loosen a bolt to adjust vertical angle of the camera.
- 2) Use the WRENCH to tighten a bolt after adjusting the camera.



1.5 Specification

1.5.1 Camera Specification

Type	Network Color Day & Night IR Camera
Image Sensor	1/3" SONY Progressive scan EXview HAD CCD(1,3 Mega Pixels)
Effective pixels	1296(H) x 966(V) approx. 1,25M pixels
Cell size	3,75 μ m(H) x 3,75 μ m(V)
Resolution	1280 x 960
TV type	NTSC / PAL
Scanning System	Progressive Scan
Min. Illumination	0Lux(40M Range) Sense up AutoX4, LED ON – LED 30pcs
Alarm Input/Output	Input : 1, Output : 1
IR LED	30PCS
Lens	Vari-focal Auto Iris Lens

1.5.2 Camera Function

Day & Night	Auto, Color, B/W
BLC	Off, BLC1, BLC2, BLC3
Sense up	Off, Auto X2 ~ X255
Brightness	Adjustable
Contrast	Adjustable
Sharpness	Adjustable
AWB	Auto, Indoor, Outdoor, Fluorescent, Manual
Saturation	Adjustable
Hue	Adjustable
Negative	Off, On
Pattern Generator	Off, On
Focus index	Display Off, On
Blemish	Dynamic Compensation
EZOOM	X1 ~ X12 Selectable(available with CMS only)
Iris	Auto iris

※ The specification is subject to change without any prior notice to improve the quality.

1.5.3 Network Specification

Summary	OS	Embedded Linux
	Network Interface	RJ45 10/100BaseT, Ethernet
	Setting	By Web browser
	Network support	Leased Line, Cable Modem, Support Dynamic IP and Static IP, ADSL usable under Router
	Supported Protocol	HTTP, FTP, TCP/IP, DHCP, ARP, DNS, ICMP
	Security	USER AUTHENTICATION
	PC OS(Viewer)	WINDOWS 2000, WINDOWS XP, WINDOWS VISTA
	Web browser	Server setting function, Web Viewer Download Page, User Homepage Upload
Image	Compression	MPEG-4, MJPEG
	Resolution	VGA , SXGA
	Compression Rate	200:1(Typical)
	Frame Rate	NTSC : VGA-30 fps SXGA-15 fps PAL : VGA-25 fps SXGA-12,5 fps
	Bit Rate	64kbps ~ 8000kbps
Function	Simultaneous Access	Max. 10 users(under 5 users recommended)
	Video Recording	Recording in client PC with CMS or FTP Server upon Alarm Event
	Motion Detection	Support
	Privacy Zone	Support
	OSD	Support
	Alarm Input/Output	Support
	Dynamic IP	Support
	IP Router	Support
DDNS	Support	

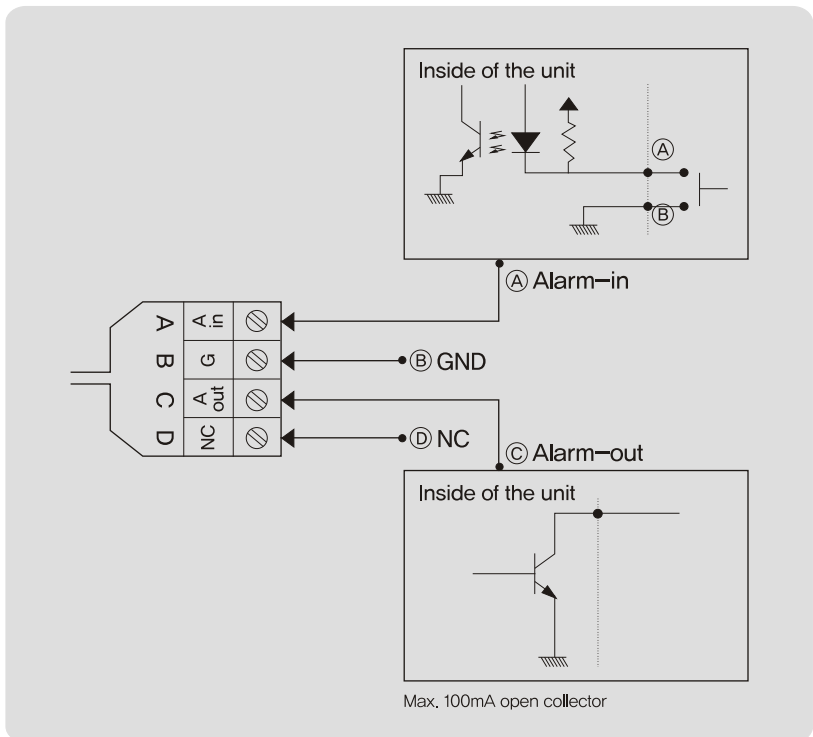
※ The specification is subject to change without any prior notice to improve the quality.

1.5.4 Electric Specification

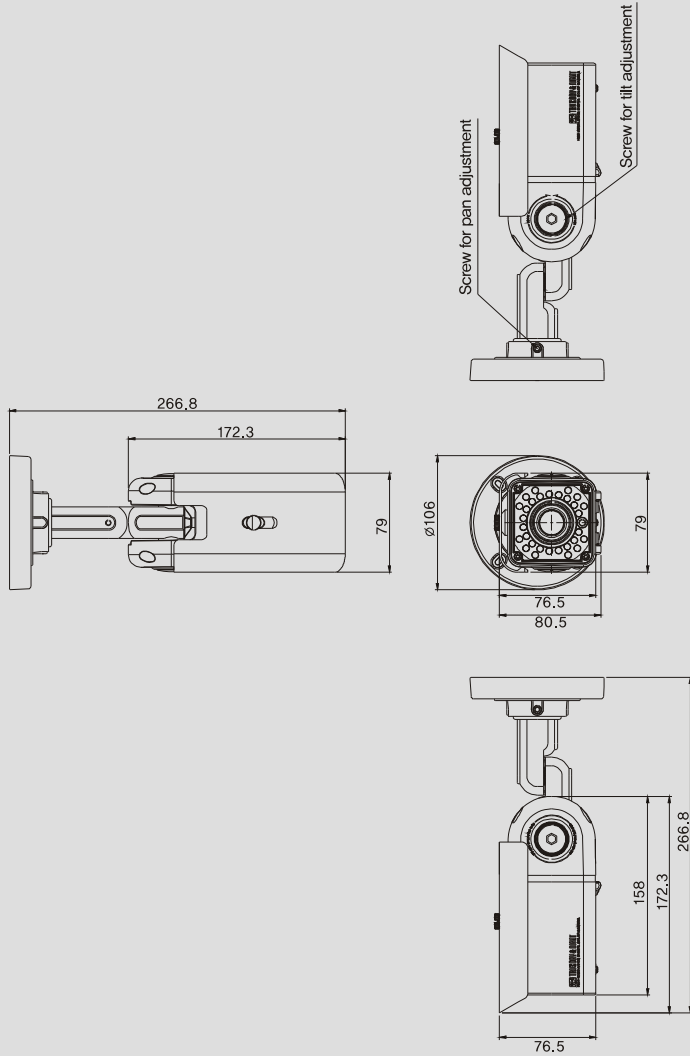
Power Supply	Regulated 12V DC
Current Consumption	Max, 1A(at 12V DC) LED ON
Operation Temp.	5°C ~ 50°C
Preservation Temp.	-20°C ~ 60°C
Dimension	79(W) X 76.5(H) X 266.8(D)mm
Weight	1,22Kg

※The specification is subject to change without any prior notice to improve the quality.

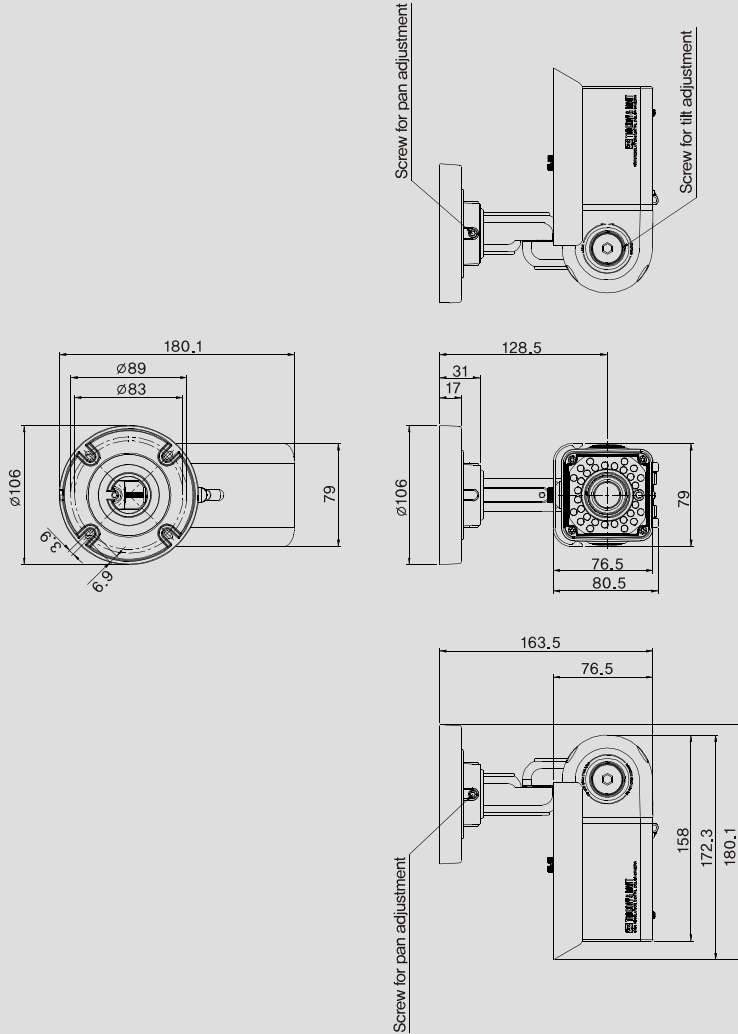
1.5.5 Alarm Input/Output



1.5.6 DIMENSION(Wall mount)



1.5.7 DIMENSION(Ceiling mount)



Chapter 2.

Installation and Video Check

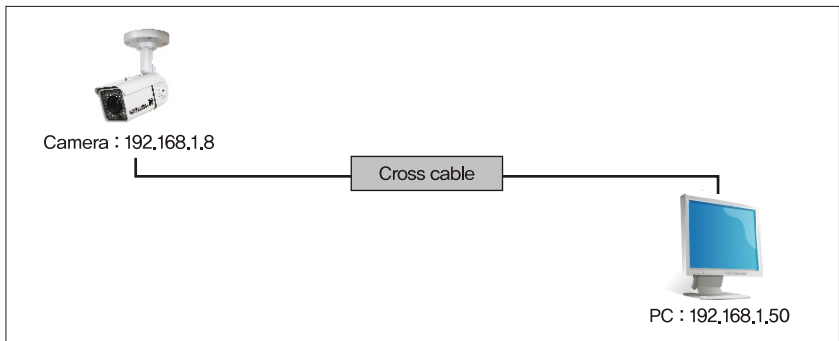
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Chapter 2. Installation and Video Check

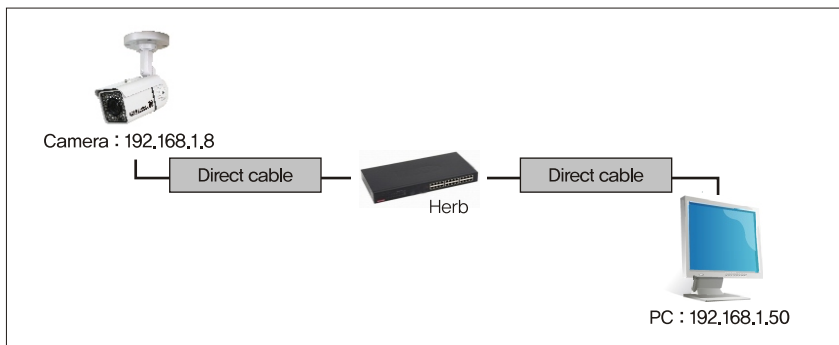
2.1 Installation

On the assumption that User PC and the camera are used under static IP, and the camera is to be directly connected with User PC or Local Network, The installation procedure is to be;

- (1) Connect the camera and PC with LAN Cable(Cross cable).
(Please use the direct cable if you connect to local network)
- (2) Power on camera.
- (3) Wait about 2 minutes after power on camera, then light-on on LED shows that the system has been booted normally.



Cross cable connection



Direct cable connection

2.2 Video Check

Basic network setting value of the unit is to be;

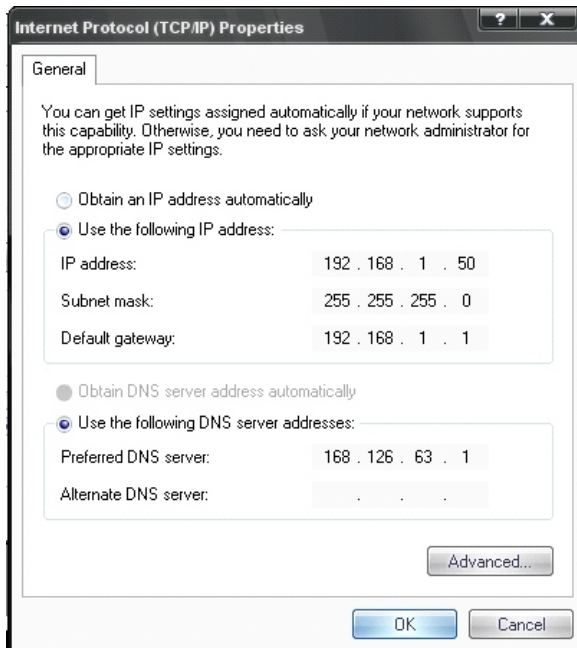
IP Address	: 192.168.1.8
Subnet Mask	: 255.255.255.0
Gateway	: 192.168.1.1

To connect the unit in user's PC, change the setting value of PC network environment.

[Caution] Before changing the setting value, please memorize the previous setting value on your PC.

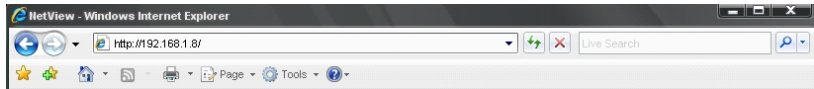
2.2.1 Change the setting value of PC network environment

Set IP Address, Subnet Mask and Gate—way of user's PC with 192.168.1.50 / 255.255.255.0 / 192.168.1.1 as shown on [Pic. 2–1].



[Pic. 2–1] Network Setting for User PC

2.2.2 Connect the camera with web browser



[Pic. 2-2] Web Browser Address Input

- (1) Run web browser as shown [Pic. 2-2].
- (2) Input 192.168.1.8 (default value) in URL and press "ENTER" button.
- (3) And then, [Pic. 2-3] is to be shown.



[Pic. 2-3] Main Homepage

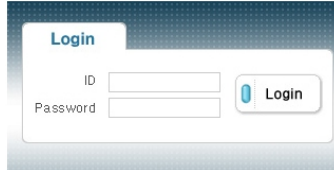
- (4) In case [Pic. 2-3] does not appear, press "factory reset" button for 5sec to reset Hardware.
- (5) Shown [Pic. 2-3], installation is complete.

2.2.3 See the video

Click **Connect** button on the main page [Pic. 2-3].

2.2.4 Input ID/Password

Input ID and Password and click on  to see the video feed.
(ID : root, Password : root)



[Pic. 2-4] User Login

User's Authority to see video feed is as follow

ID	Password	Authority
guest	guest	View only
root	root	All

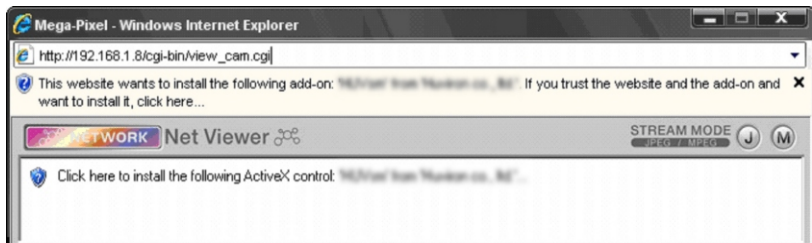
[Table. 3-1] User ID, Password, Authority

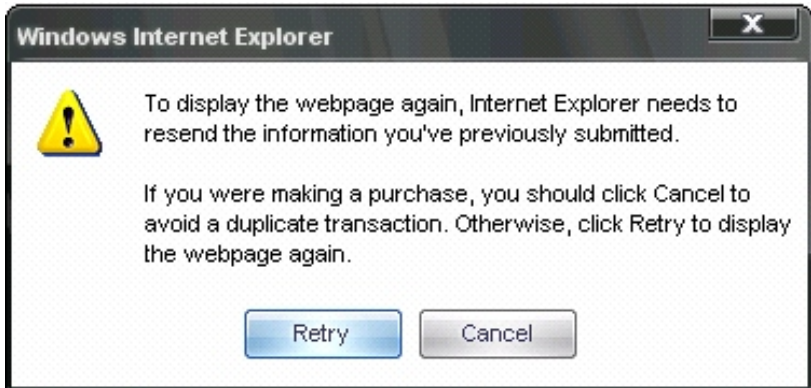
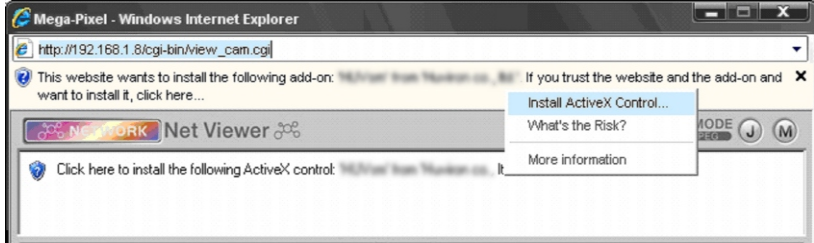
[Caution] Please change default value of ID/Password into new ones after the installation.

[Reference] Please refer to 4.2.1 Administrator's ID and Password Change regarding 'Change Administrator'.

2.2.5 Active-X auto installation

Click "install" on the security certificate to load the Active-X control. If you choose "Don't install", the web viewer would not work.

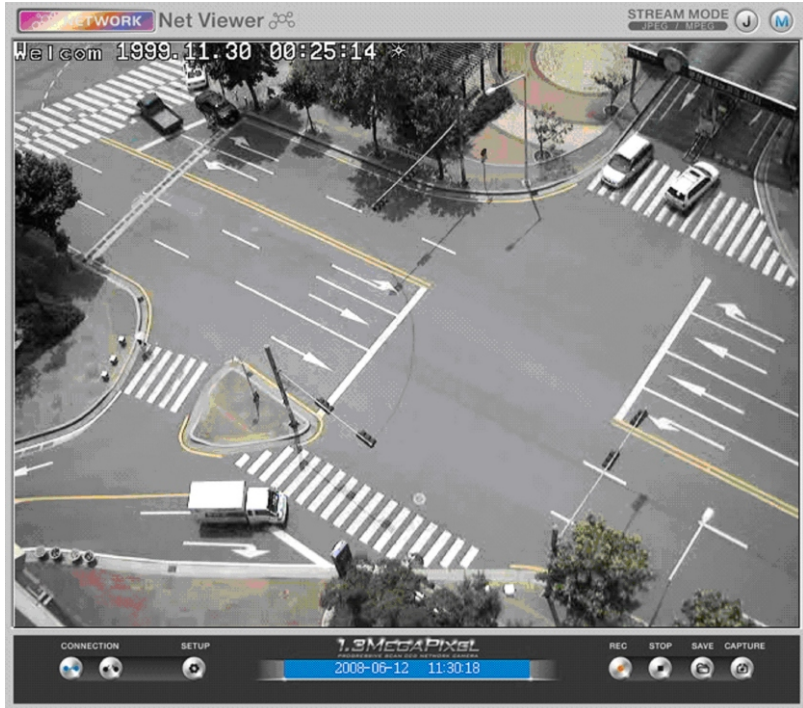




[Pic. 2–5] ActiveX Download

2.2.6 Complete the installation

Upon installation, Web Viewer [Pic. 2-7] appears and image of camera is to be seen.



[Pic. 2-7] Web Viewer



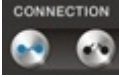





Installation and check video are completed successfully.

Please change ID/PASSWORD.

[Reference] Please refer to 4.2.1 Administrator's ID and Password Change regarding 'Change Administrator'.

2.2.7 NetViewer description

The NetViewer size fixed at 640 X 480.

Button	Function
	Connect to MPEG4 stream, Default
	Connect to MJPEG stream.
	Connect to server / Disconnect
	Go to Administrator's page
2008-06-12 11:37:17	Display current time of client PC
	Select the location to save
	Start recording
	Stop recording
	Capture still image into BMP file.

Chapter 3.

Network Setting

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Chapter 3. Network Setting

3.1. Check Network and Installation Type

This Chapter is for basic setting regarding Network. To install hardware, basic understanding of network is required.

[Reference] Please refer to Appendix for better understanding.

There are two ways to install hardware.

1. Install the camera without IP sharing device.
2. Install the camera under IP sharing device which is required PPPoE environment.

This explanation is based on upon default value of ex-factory.

〈Factory default〉	
IP address	: 192.168.1.8
Subnet Mask	: 255.255.255.0
Gateway	: 192.168.1.1

[Caution 1] Check video before installation, on 'Chapter 2, Installation and video check'.

[Caution 1] In case using IP sharing device, only global IP is available.

[Caution 1] This unit doesn't support PPPoE directly. So, IP sharing Device is required to connect to the camera.

〈Installation without IP sharing device〉

- For static IP, refer to 'Static IP Setup'.
- For dynamic IP, refer to 'Dynamic IP Setup'.

〈Installation with IP sharing device〉

- Should set up with Static IP, refer to 'Installation with IP sharing device'.

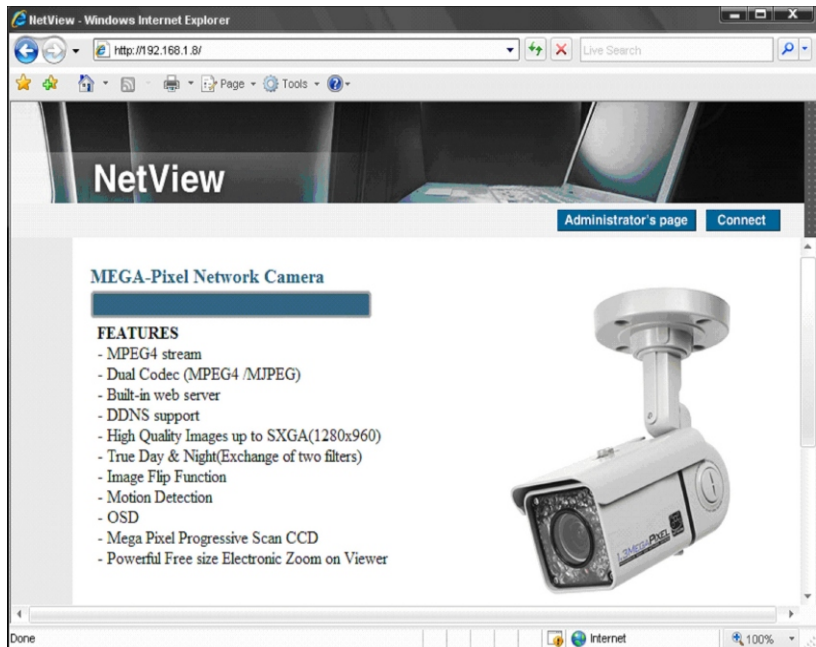
3.2 Installation without IP sharing device(router)

3.2.1 Static IP Setup

- (1) Connect the camera to PC with LAN cable(cross cable).
- (2) Cable connection and network setup should be same as in 'Chapter 2. Installation and video check"
- (3) Connect the camera to Web.

Run web browser and input `http://192.168.1.8`(default value) in URL and press "ENTER" button then [Pic. 3-1] will be shown.

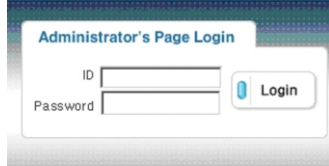
[Caution] If you changed IP address, you should input the changed IP address.



[Pic. 3-1] Main Page

- (4) Administration page log-in

Click **Administrator's page** on [Pic. 3-1], then browser shows [Pic. 3-2] log-in Page.

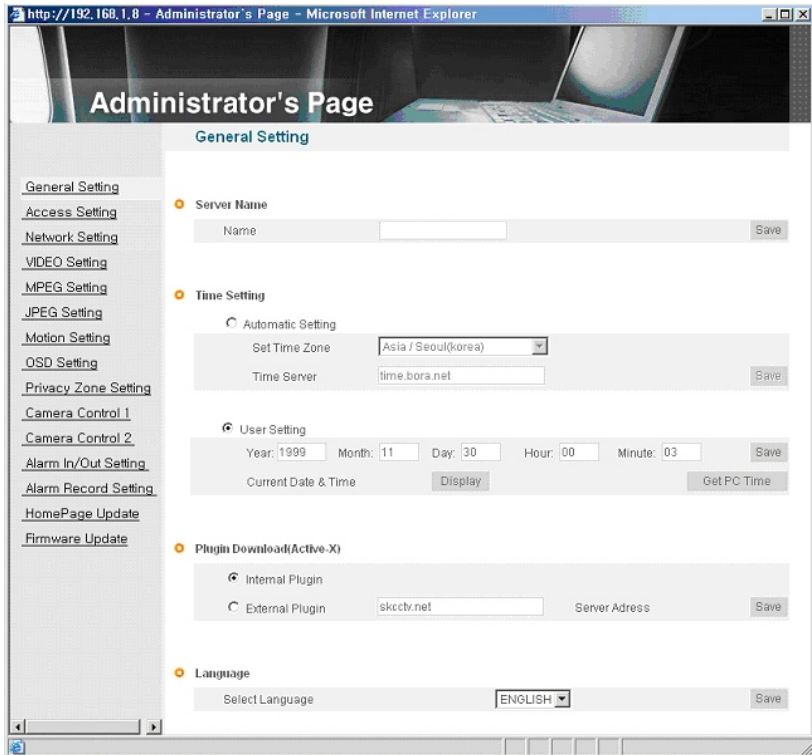


[Pic. 3-2] Administration page log-in

After putting 'admin' in ID and Password line. Click button and then.

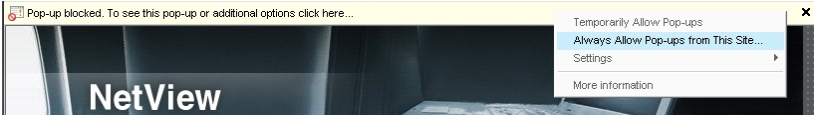
[Caution] If you logged in first in administrator mode, please change the password and ID of administrator.

Please refer to 4.2.1 Administrator's ID and password change.



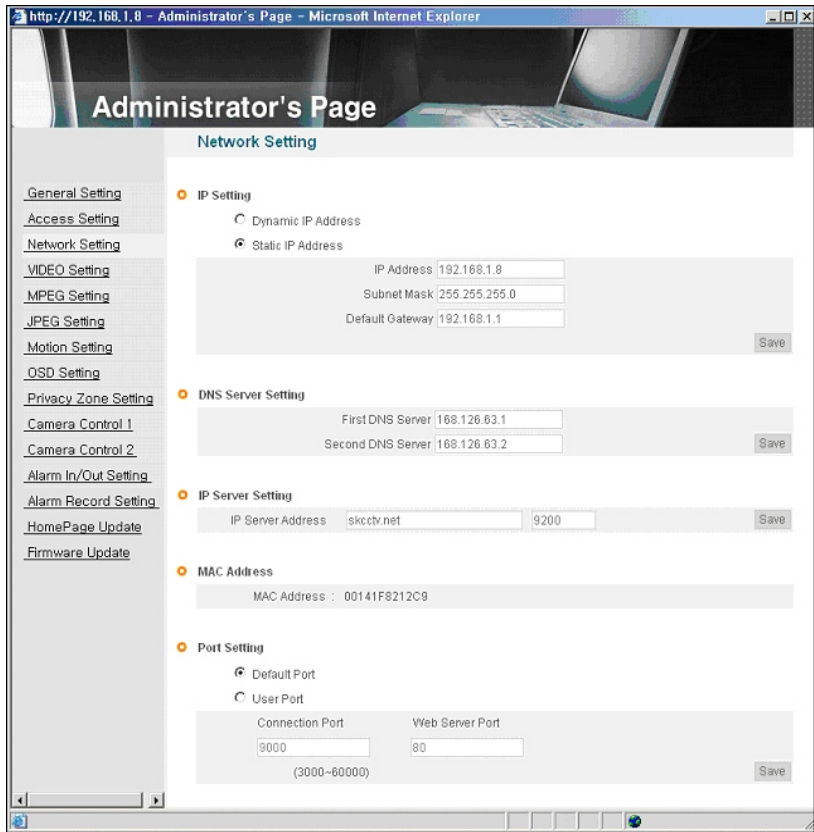
[Pic. 3-3] Administrator's Page

(Caution) If your browser block Pop-up, click right mouse button and change the option to 'always allow pop-up from this site'.



(5) Network Setting

Click 'Network Setting' on [Pic. 3-3], [Pic. 3-4] appears.



[Pic. 3-4] Network Setting

(6) DNS Server Setting

For setting of DNS server, input DNS address to fit with network environment to set(Default address is DNS address of 'Dacom', 'Hanaro telecom').

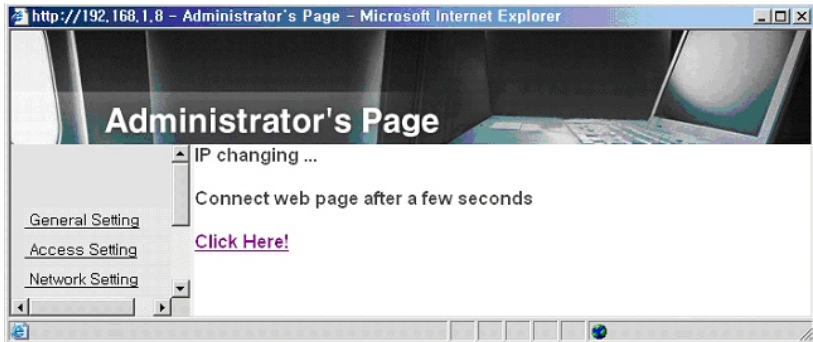
Use DNS value normally set in PC. DNS address should be necessarily input. Click **Save** button to save setting value.

(7) IP address setting

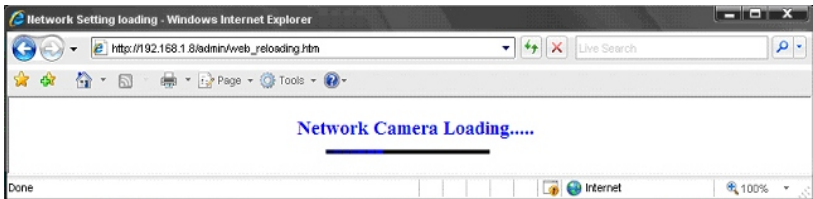
Click 'Static IP Address' in 'IP Setting' of [Pic. 3-4], and input IP Address, Subnet Mask, Default Gateway according to network environment,

Click **Save** button to save setting value. Click 'Click Here' upon appearing of IP change window of [Pic. 3-5].

As IP Change loading page appears as [Pic. 3-6], the main page of changed address is connected.(May not find the main page of changed address under cross cable connection, but IP has been changed.)



[Pic. 3-5] IP change



[Pic. 3-6] IP Change loading page

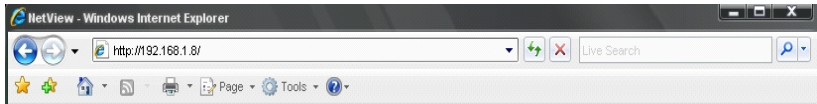
- (8) Remove LAN Cable(cross cable) connected between the camera and PC.
- (9) Connect the camera to network with LAN cable(straight cable).
- (10) Connect PC to network with LAN cable(straight cable).
- (11) Set up IP address, Subnet Mask and Gate way of PC according to network environment.
- (12) Check

Run web browser on PC, input IP address set in the unit onto URL and click as [Pic. 3-7].

When main page appears as [Pic. 3-1], click **Connect** button to connect to web viewer and check if IP setting is correct or not.

(Refer to 'Chapter 2. Installation and video check')

In case video is not seen, check whether there may be confliction of IP in network, and recheck the set value of network environment of the camera, and network environment of User's PC.



[Pic. 3-7] Connect to the unit

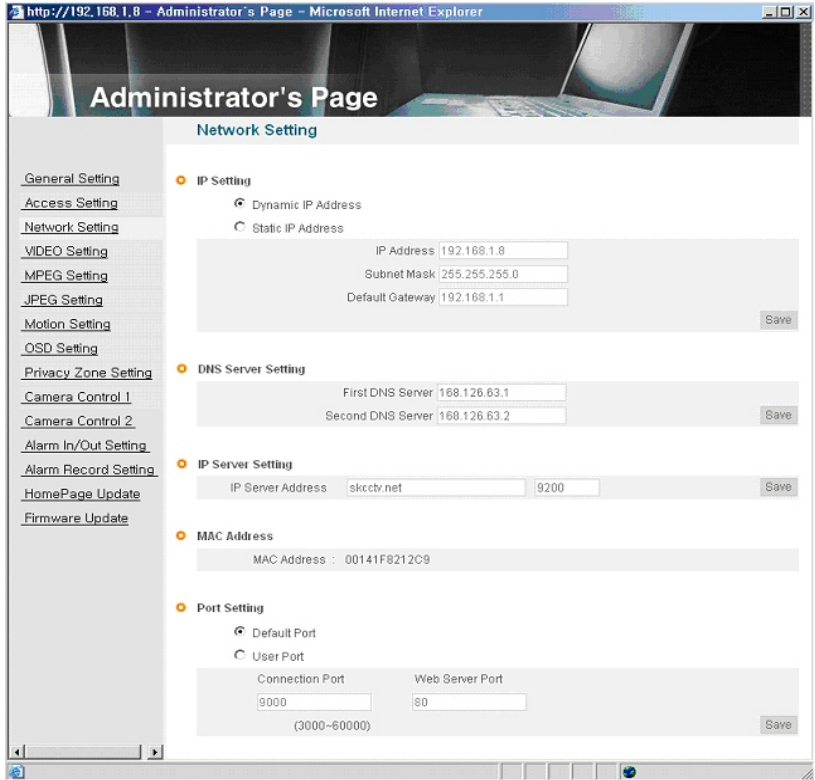
[Reference] If you register on DDNS server we operate, you can use the registered domain name for connection.
(Refer to "DDNS Server")

3.2.2 Dynamic IP Setup

Do not set up dynamic IP in the unit except directly connecting the camera to network supporting dynamic IP.

Reset, in case IP has not been allocated to the unit in dynamic IP setting, to go to initial value and try again.

- (1) Connect the unit and PC with LAN cable(cross cable).
- (2) Cable connection and network setting should be done same as 'Chapter 2. Installation and video check' and check video.
- (3) Go to network setting page of administrator's page as per (3),(4),(5) of 'Static IP Setup'.



[Pic. 3-8] Network Setting

(4) DNS server setting

For setting of DNS Server, input DNS address to fit with network environment to set(Default address is DNS address of 'Dacom', 'Hanaro telecom').

Use DNS value normally set in PC.

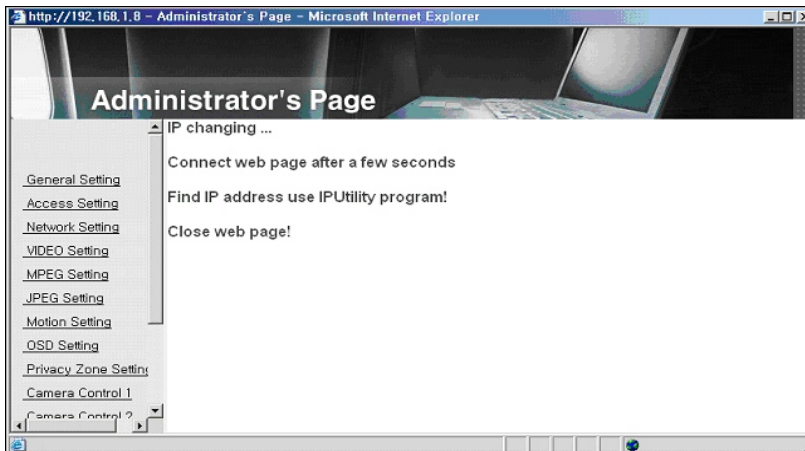
DNS address should be necessarily input.

Click **Save** button to save setting value.

(5) Dynamic IP address

Click on 'Dynamic IP Address' in 'IP Setting'.

Click **Save** button to save, and [Pic. 3-9] will be shown.



[Pic. 3-9] Dynamic IP Setting

- (6) Remove LAN cable(cross cable) connected between the camera and PC.
- (7) Connect the camera to network with lan cable(direct cable).
- (8) Connect PC to Network with LAN cable(direct cable).
- (9) Set up IP address, Subnet Mask and Gate way of PC according to network environment.
- (10) Installation Check

After logging out web page, find IP of the unit with 'IP Finder' program provided as an accessory(Refer to "IP Finder").

In case IP is not found, press factory set button for 3sec and try again.

- (11) Check

If you use dynamic IP, when you power on/off the unit, allocated IP can be changed according to network environment.

You can connect easily with domain name after registration of DNS.

<Case 1> Connection with DNS server(Recommended).

For example, if you registered domain name as 'user1' in server, run web browser and input "http://user1.skccvt.net" in URL. ("skccvt.net" is address of DNS server.)

If main page is shown as [Pic. 3-1], check video of the unit.
If video is seen, set up is properly done.

〈Case 2〉 Connection with IP address

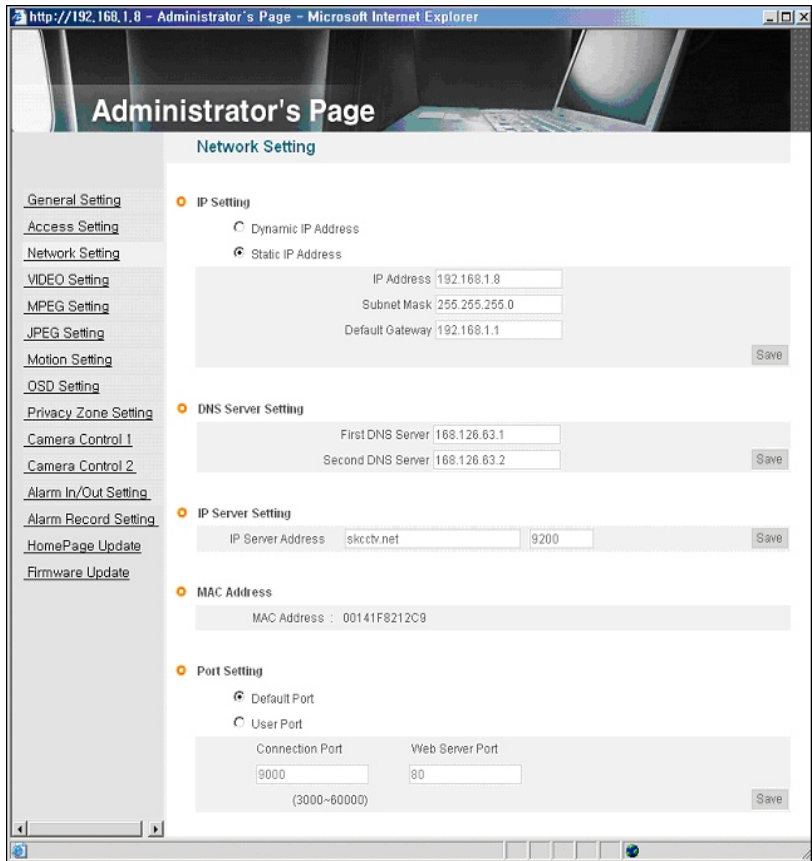
After installation, you can find IP address by 'IP Finder' program.
Input IP address in URL directly.

However, in this case, IP address can be changed and you can not
find IP address in external network by 'IP Finder'.

3.3 Installation with IP sharing device(router)

3.3.1 General Installation

- (1) Connect the camera and PC with LAN cable(cross cable).
- (2) After checking video in '1. Installation and video check', then go to the next step.
- (3) Go to network setting page of Administrator's Page as per 3), 4), 5) of 'Static IP Setup'



[Pic. 3-10] Network Setting

(4) DNS Server Setting

For setting of 'DNS server', input DNS address to fit with network environment to set,(Default address is DNS address of Dacom, 'Hanarotelecom'.)

Use DNS value normally set in PC.

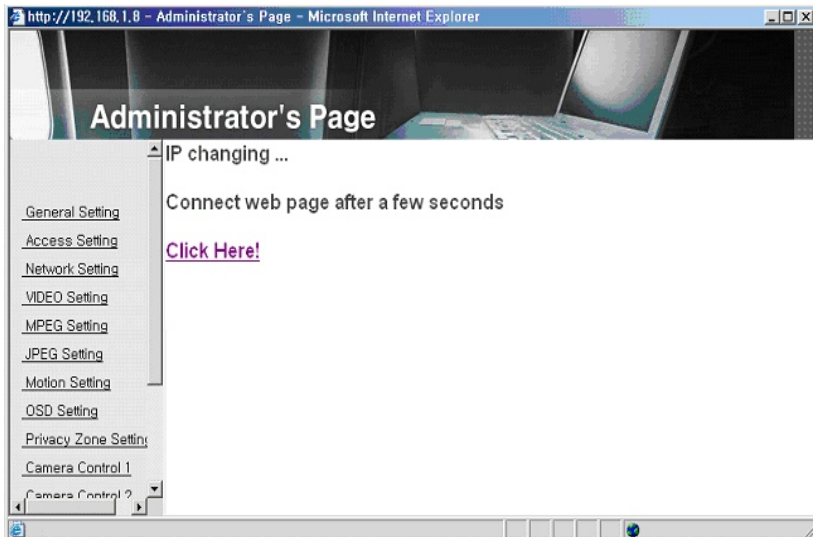
Click **Save** button to save the setting value.

(5) IP Address Setting

Click 'Static IP Address' in 'IP Setting' of [Pic. 3-10], and input IP Address, Subnet Mask, Default Gateway(Please refer to the manual of IP sharing device) and click button to save the setting value.

Click **Save** button to save the setting value.

When [Pic. 3-11] appears, click 'Click Here' to go to the changed main page.
(The changed main page can not be found with cross cable, but IP change has been completed.)



[Pic. 3-11] IP change

(6) Connect the camera to IP sharing device with LAN cable(direct cable).

(7) Connect PC to IP sharing device with LAN cable(direct cable).

3.3.2 Port Setting change and installation

Set port in Port Setting page of [Pic.3-13].

It is required to set each different port for many units or to prevent from IP collision with other device.

Click **Save** button to save set value.

Port Setting

Default Port

User Port

Connection Port	Web Server Port
9000	80

Save

[Pic. 3-13] Port setting

(1) Connect from outside

To connect from outside, you should forward port you set from IP sharing device to the unit.

For more detail, please refer to the manual of IP sharing device.

(2) Local check

As following the above procedure, you can connect the camera via local LAN. Run web browser and input IP address in URL and click 'Enter'.

If you changed web server port (), you must input 'http://IP Address:Port Number'.

For example, If you set IP address to 192.168.1.100 and changed web server port to 81, you must input Http://192.168.1.100:81.(Default of web server port: 80).

After [Pic.3-14] appears, check video referring to '1. Video check'.



[Pic. 3-14] Main homepage

3.4 Cautions for Network Setting

If the firewall is used for security purpose, the unit may not work properly.

In this case, open the port of the unit, then it will work properly(Refer to the manual of IP sharing device).

The port being used by the unit can be checked on 'Port Setting' of 'Network Setting' of 'Administrator's Page'.

Port of the on ex-factory is set default as follow;

Port Kind	Port Number	Remark
Web Connection Port	80(TCP)	set up
Video Streaming Port	9000(TCP)	Authentication and Control Port

In setting user port, do not use from 1600 to 1670, which port is used in the unit itself.

Chapter 4.

System Setting

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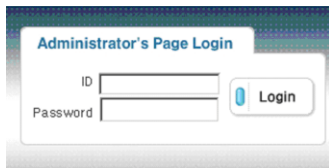
Chapter 4. System Setting

Click **Administrator's page** on main home Page, login page [Pic. 4-1] appears.

Input 'admin', 'admin' in ID and Password line, click then [Pic.4-2] Administrator's page will be shown.

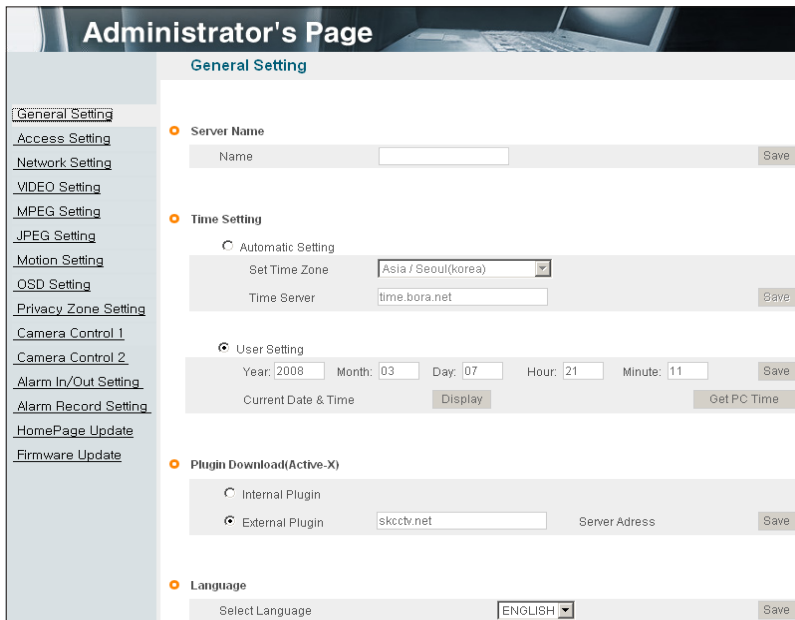
[Reference] ID and Password are preset as admin / admin in Administrator's Page.

〈Caution〉 Change ID and Password of Administrator in General Setting of 4. Access Setting.



[Pic. 4-1] Administrator's page login

4.1 General Setting



[Pic. 4-2] General Setting

4.1.1 Title Setting



Server Name
 Name

[Pic. 4-3] Title Setting

Server title would be shown on the top of the video when you see the video by the viewer. Server title is to be English without space(Max. 10 characters).

Click '' button to save title after inputting name.

4.1.2 Time Setting

There are two ways of time setting as follow.

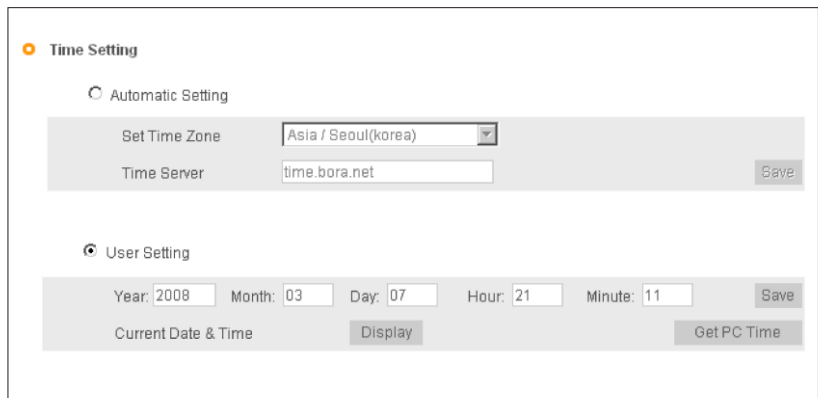
'Automatic Setting': This is to set up local time in case of monitoring from different time zone area.

Select one of time zone in 'Set Time Zone' and save.

'User Setting': This is for user to set up time directly.

There can be some gaps between local time and time of the unit.

Click '' button to save setting value.



Time Setting

Automatic Setting

Set Time Zone

Time Server

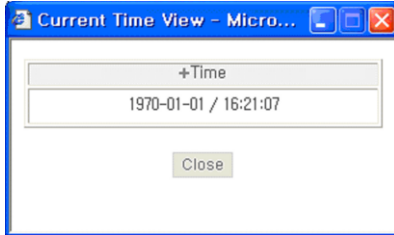
User Setting

Year: Month: Day: Hour: Minute:

Current Date & Time

[Pic. 4-4] Time Zone

Click 'Display' to see current time set.



[Pic. 4-5] Current time view

If 'Automatic Setting' is not correct, click 'Save' on [Pic. 4-4] again.
 (Clicking 'Save' button, it will receive new time information.)

Click 'Get PC Time' to receive time on client PC, and click 'Save' button to save.

4.1.3 Active-X download

This is to set how to download Active X of web viewer, locally or from outer server designated. In case setting as local download, it has a merit to use in private network without Internet. In case of setting as download from outside, it has a merit to download the updated Active X of web viewer automatically.



[Pic. 4-6] Active-X plug-in download route

4.1.4 Select Language

This is to select language to be displayed in all web pages such as Administrator's page, web viewer and main page.



[Pic. 4-7] Select Language

It supports both English and Korean now. Click 'Save' button to save the set value after select the language.

4.2 Access Setting

Administrator's Page

Access Setting

- General Setting
- Access Setting**
- Network Setting
- VIDEO Setting
- MPEG Setting
- JPEG Setting
- Motion Setting
- OSD Setting
- Privacy Zone Setting
- Camera Control 1
- Camera Control 2
- Alarm In/Out Setting
- Alarm Record Setting
- HomePage Update
- Firmware Update

Change Administrator

Admin Id: Admin Password: Password Confirm:

Add User

User Id: User Password: Password Confirm:

View Only PTZ I/O Control

List Users

[Pic. 4–8] Access setting

4.2.1 Administrator's ID and Password Change

⚠️ (Caution) Change Administrator's ID and password and do not disclose the information to others.

Change Administrator

Admin Id: Admin Password: Password Confirm:

[Pic. 4–9] Administrator's ID and password change

Administrator's ID and password should be English, within 20 characters, without space.

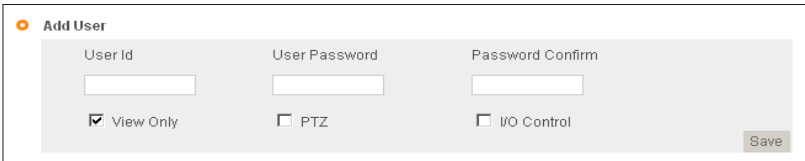
Click ' ' button to save the changed value after change Administrator's ID and password.

In case of forgetting Administrator's ID and password, click 'Factory Set' button for 5 sec to return to initial value, and change Administrator's ID.

4.2.2 User Registration

This is to register an account of user who monitors and controls Video. Administrator's ID and Password should be English, within 20 characters, without space. Allow the authority to users and click ' Save ' button. A maximum user to allow registration is 100 persons.

Authority	Function	Remark
View Only	Monitoring only	
PTZ	Zoom function	Not available
I/O Control	Alarm Out control	



Add User

User Id:

User Password:

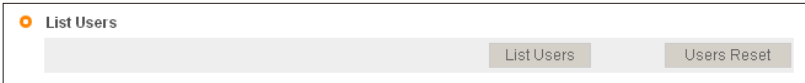
Password Confirm:

View Only PTZ I/O Control

Save

[Pic. 4-10] User registration

4.2.3 User List and Delete

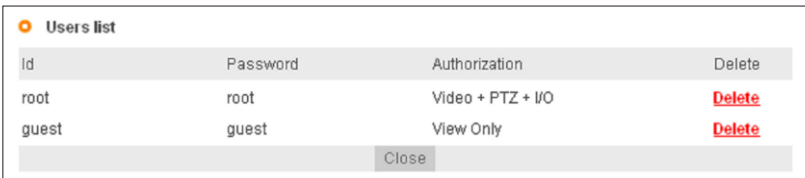


List Users

List Users Users Reset

[Pic. 4-11] User list

User list is available on clicking 'List Users' to check list and delete user ID. User ID 'guest', 'root' has be pre-registered as basic user ID on ex-factory. In case of clicking 'Users Reset', basic user ID('guest' and 'root') will be shown without any other user lists.



Users list

Id	Password	Authorization	Delete
root	root	Video + PTZ + I/O	Delete
guest	guest	View Only	Delete

Close

[Pic. 4-12] User list

<Caution> Delete 'root' and 'guest' and create another ID and Password.

4.3 Network Setting

This is to set network. Set network to fit user's network environment in '3. Network Setting'. Change network information to fit environment for the unit to be installed in.

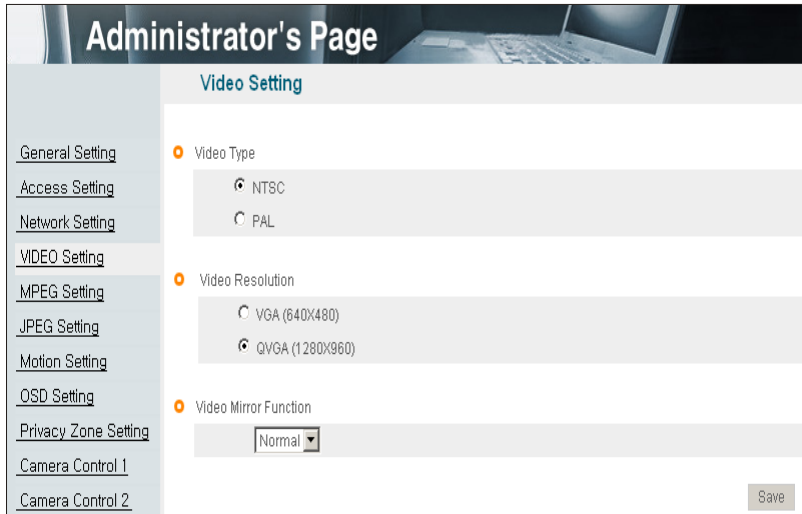
4.4 Video Setting

4.4.1 Video format

This is to select the value regarding video format(NTSC/PAL).

Please check the frequency of power supply at the place of camera installation. (60Hz for NTSC, 50Hz for PAL)

〈Caution〉 Improper selection of video format can cause the video to flicker.



[Pic. 4-13] Video setting

4.4.2 Resolution

This is to select resolution(VGA/QVGA).

In case of video resolution, selecting 'VGA', it has 'VGA' resolution both in MPEG and in JPEG. Selecting QVGA, it has 'QVGA' resolution in JPEG and 'VGA' resolution in MPEG. In this case, there is no OSD and privacy zone function in JPEG.


Video stream is dual codec which supports MPEG and JPEG at the same time.

[Reference] QVGA(Quadruple VGA) : 1280 X 960, VGA : 640 X 480.

<Caution> In case of changing video format or video resolution, the program will restart, please wait for a while.

4.4.3 Video mirror function

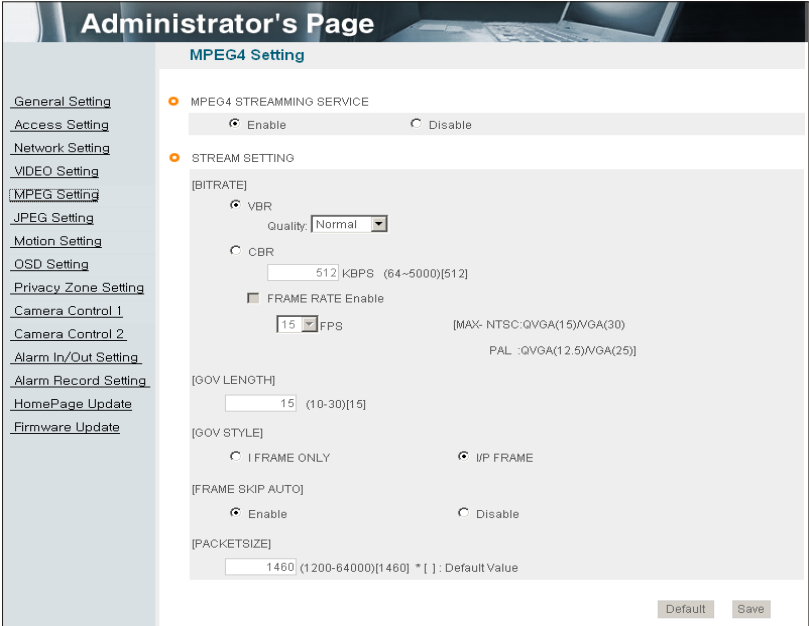
Make a mirror image of video.(Flip, Mirror, both)

Click '  ' button to save.

4.5 MPEG Setting

4.5.1 MPEG4 stream service

Select MPEG stream service 'Enable' or 'Disable'.



[Pic. 4-14] MPEG4 Setting

4.5.2 Stream Setting

1) BITRATE

Set the bit rate of the video stream. In case of VBR(Variable BitRate), user can select the video quality among three options(Normal, High, Very High).

Bitrate is changed automatically to keep the picture quality.

In case of CBR(Constant BitRate), bit rate is fixed to keep the transmission speed. It is selectable from 64 to 8,000 Kbps.

[Caution] When using the VBR option, it is impossible to use a setting option for the frame rate.

[Reference] In case of selecting bit rate too low, there might be the blocking effect.

2) GOV(Group of VOP) LENGTH

Set the length of VOP which is the length from I frame to next I frame when you select I/P frame.

3) GOV STYLE

Select the style of VOP between 'I frame only' and 'I/P frame'. Selecting 'I frame only', the volume of data will increase and cause a heavy traffic in network.

4) FRAME RATE


Set the frame rate. In case of QVGA, it has Max. 15fps in NTSC and 12,5fps in PAL. In case of VGA, it has Max. 30fps in NTSC and 25fps in PAL.

5) FRAME SKIP AUTO

This function is to skip the frame automatically to keep the picture quality setting low bit rate. Inactivating this function, the picture quality will be lower to keep the frame rate.

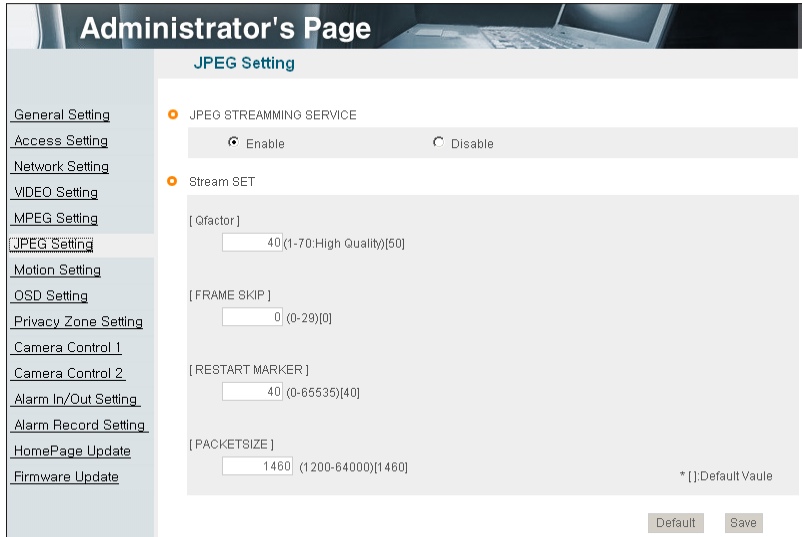
6) PACKET SIZE

Set the packet size transmitting the video data.

Click '  ' button to save.

〈Caution〉 In case of changing MPEG setting, the program will restart, Please wait for a while.

4.6 JPEG Setting



[Pic. 4–14] JPEG Setting

4.6.1 JPEG Stream Service

Select whether JPEG stream service available or not.

4.6.2 Stream Setting

1) Qfactor

Set the video picture quality in JPEG. There are from 1 to 99. Selecting 1, it supports the best picture quality but the volume of data will increase. On the contrary, selecting 99, the picture quality will be lowest but the volume of data will decrease.

Recommended vale is between 30 and 50.

2) FRAME SKIP

Skip the frame by user setting.

'0' can not be skipped and from 1 to 29 can be skipped. This is to keep the

volume of data from a heavy traffic in network. But in case of skipping too many frames, picture might not be natural.

Ex) 0 : Transmission frame X : Skip frame

1 : 0X0X0X0X0X

2 : 0XX0XX0XX0XX ...

3 : 0XXX0XXX0XXX0XXX...

3) RESTART MARKER

It is to set the size of linkage in one picture of JPEG. '0' means it doesn't use the linkage and in this case, the volume of data will increase.

4) PACKETSIZE

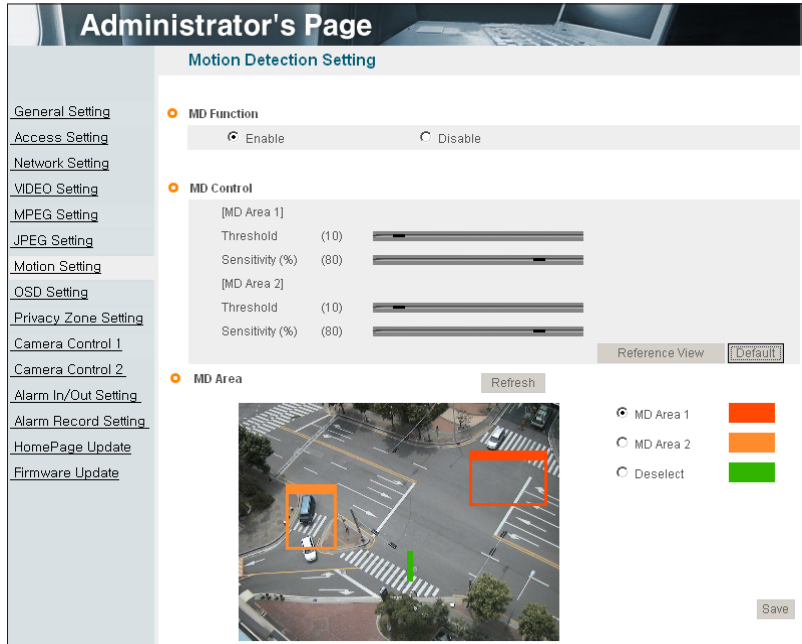
Set the packet size transmitting the video data.

Click ' ' button to save.

(Caution) In case of changing MPEG setting, the program will restart, Please wait for a while.

4.7 Motion Setting

Motion Detection function can be affected on excessive sense-up.



[Pic. 4-15] Motion detection setting

4.7.1 MD function

Select Motion detecting function 'Enable' or 'Disable'.

4.7.2 MD control

MD Area 1 & MD Area 2 can be set separately.

(1) Threshold

This is to set the threshold to decide whether it is motion or not. Set this value properly to reduce error.

8~20 is recommended for normal picture quality.

(2) Sensitivity

This is to set the threshold to decide whether it is motion or not. Set this value properly to reduce error.

In other words, it means the percentage of moving object in motion area.

It must be set higher, if the object is small compare to motion area.

Unnecessary motion can be reduced with adequate sensitivity set.

70~90 is recommended for normal picture quality.


Threshold	Sensitivity of MD area1		Sensitivity of MD area2	
	Average(%)	Minimum(%)	Average(%)	Minimum(%)
5	74	10	90	4
10	81	78	93	60
15	84	81	93	65
20	86	82	94	70
30	89	84	95	73
50	94	88	98	78

[Reference] Reference view : This table is made to help sensitivity set and it is not absolute value. It shows the sensitivity of motion area according to each threshold. Min. value is the min. sensitivity which motion can be detected. So motion is not detected, if sensitivity is set less than Min. value in each threshold. Average value is the average sensitivity which displayed for a few seconds.

If sensitivity value is "100", it means motion is not detected at all. On the contrary, if sensitivity value is "0", it means motion is detected in all motion area. If "0", or similar value is displayed while unnecessary motion is detected, please do not use the threshold value & sensitivity value. Press 'Value Reset' button, if you want reset.

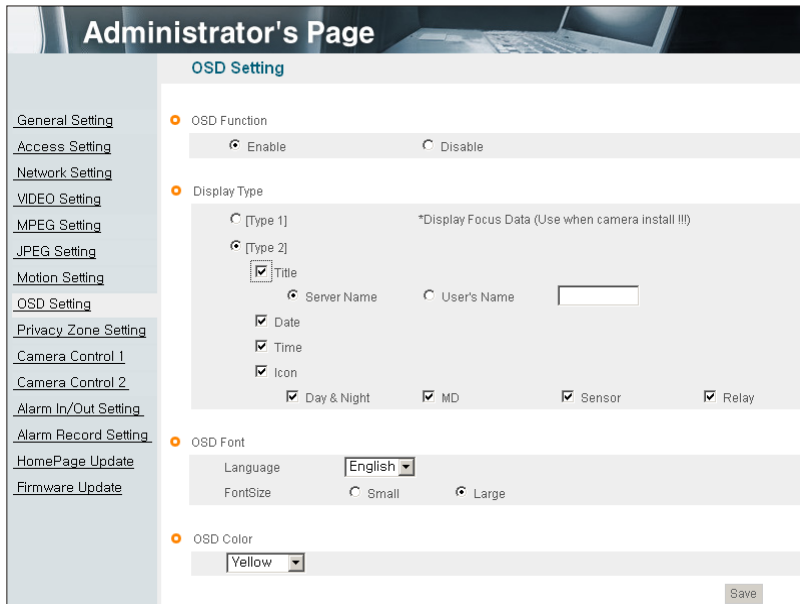
Default : Camera back to factory default once default button is pressed.

4.7.3 MD Area

There are 2 motion area and 1 exception area. To set the detecting areas, click radio button and push the left mouse button and drag where you want to set. To move the area where you already set, when there is '' on your mouse point, push the left mouse button and drag to the area you want. Click "Refresh" button to see the current video picture.

Click '' button to save.

4.8 OSD Setting



[Pic. 4-16] OSD Setting

4.8.1 OSD Function

Select OSD function 'Enable' or 'Disable'.

4.8.2 OSD Type

1) Type 1

This is to display focus data on OSD. Higher value means clearer image. Seeing this value, a user is able to adjust the focus more correctly.

2) Type 2

This is to select contents to display on OSD. There are Title, Date, Time and Icons (Day, Night, Motion, Alarm Input, Alarm Output).


Day :  Night :  Motion :  Alarm Input : **S** Alarm Output : **R**

4.8.3 OSD Font

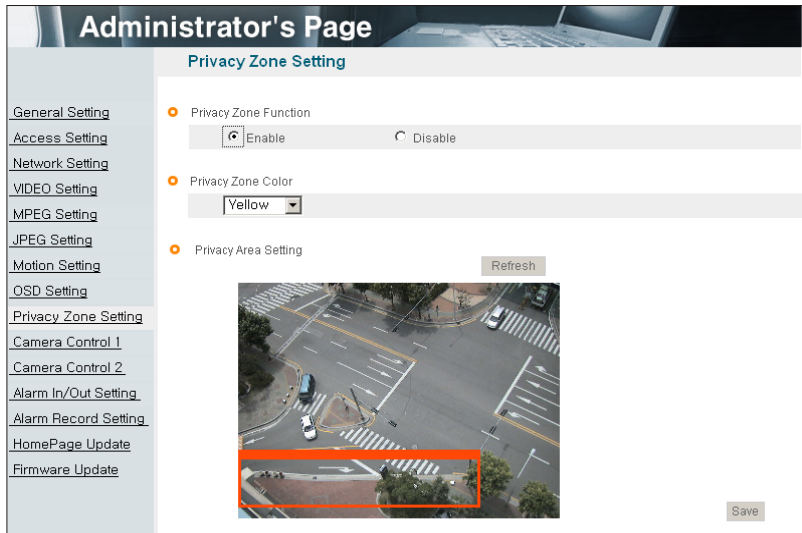
This is to select the language and font for OSD.

4.8.4 OSD Color

This is to select color for OSD.

Click '  ' button to save.

4.9 Privacy Zone Setting



[Pic. 4-17] Privacy Zone Setting


4.9.1 Privacy Zone Function


Select privacy zone function 'Enable' or 'Disable'

4.9.2 Privacy Zone Color

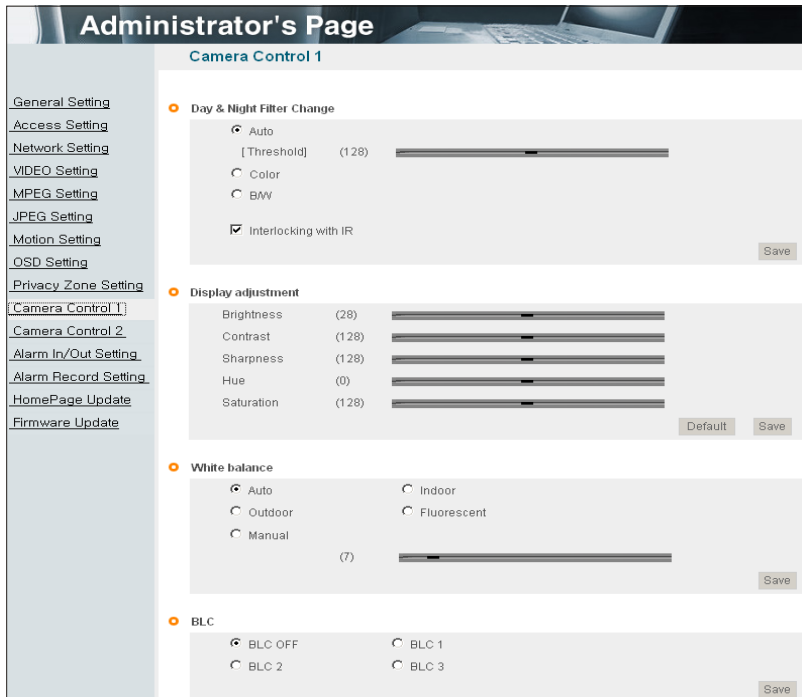
Select color for privacy zone.

4.9.3 Privacy Area Setting

This menu is to set the area for privacy function, To set the areas, push the left mouse button and drag where you want to set. To move the area where you already set, when there is  on your mouse point, push the left mouse button and drag to the area you want. There is a size limitation. Click "Refresh" button to see the current video picture.

Click '  ' button to save.

4.10 Camera Control1



[Pic. 4-18] Camera Control 1

4.10.1 Day & Night Filter Change

This menu is to set IR filter, IR LEDs, Color and B/W mode.


- **Auto** : A filter changes automatically by setting value.
Please set the value properly according to the environment.
- **Color** : A filter is fixed as color mode(IR LED off).
- **B/W** : A filter is fixed as B/W mode(IR LED on).
- **Interlocking with IR** : Checked this menu, IR LEDs turn on or off according to color or B/W mode. It is not checked, IR LEDs are always off.

Click ' **Save** ' button to save.

4,10,2 Display Adjustment


- **Brightness** : Adjust the brightness of picture.
- **Contrast** : Adjust the contrast of picture.
- **Sharpness** : Adjust the sharpness of picture.
[Reference] As the level of sharpness increases, the screen gets sharper and the Level of noise also increases.
- **Hue** : Adjust the hue of picture.
- **Saturation** : Adjust the saturation of picture.

Click 'Default' to initialize the value.

Click '  ' button to save.

4,10,3 White Balance

- **Auto** : Adjust white balance automatically.
- **Indoor** : Adjust white balance to indoor environment(3200 °K).
- **Outdoor** : Adjust white balance to outdoor environment(5600 °K).
- **Fluorescent** : Adjust white balance to fluorescent environment(4000 °K).
- **Manual** : Adjust white balance manually.

Click '  ' button to save.

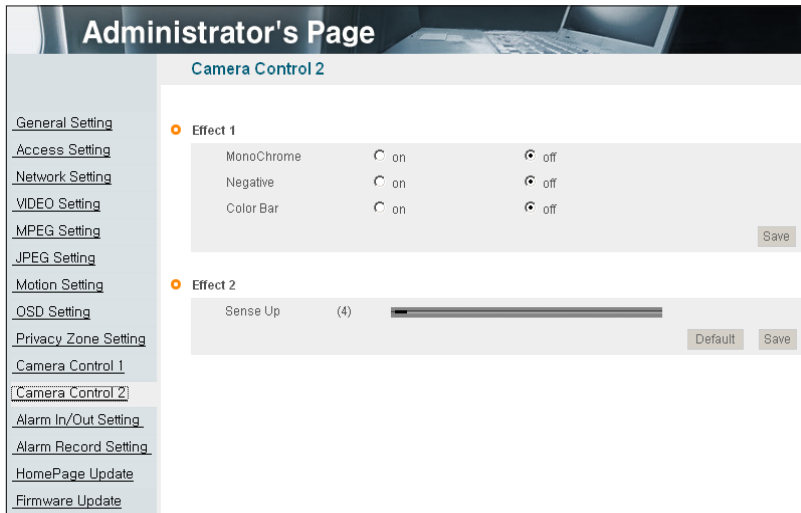
4,10,4 Back Light Compensation

It is used to get the best quality picture against the back light.

- **off** : Not use back light compensation function.
- **BLC1** : Select this function when a subject is in the middle of back light.
- **BLC2** : To see a shadow subject, light is controlled automatically regardless of position.
- **BLC3** : This is a mode when a subject is dark but bright surrounding.

〈Caution〉 When the automation set of day&night filter change is on, screen is changed to B/W and BLC function is not activated.

4.11 Camera Control 2



[Pic. 4–19] Camera Control 2

4.11.1 Effect 1

- MonoChrome : Change color picture to B/W.
- Negative : Reverse the brightness and color.
- Color Bar : Display color bar picture.

Click ' ' button to save.

4.11.2 Effect 2

This is relating to sense up function. Low shutter speed which can gather more light by increased exposure of the light is suitable for the dark circumstances and at night. Using this mode, you can distinguish the outline and the color of the objects. But, regarding moving objects, its outline might not be clear. And excessive Sense up function might effect on motion detection.

Click ' ' button to save.

4.12 Alarm In/Out Setting

The screenshot displays the 'Administrator's Page' with a sidebar menu on the left and a main configuration area on the right. The sidebar menu includes the following items: General Setting, Access Setting, Network Setting, VIDEO Setting, MPEG Setting, JPEG Setting, Motion Setting, OSD Setting, Privacy Zone Setting, Camera Control 1, Camera Control 2, Alarm In/Out Setting (highlighted), Alarm Record Setting, HomePage Update, and Firmware Update. The main configuration area is titled 'Alarm In/Out Setting' and contains two sections: 'Alarm Input' and 'Alarm Output'. The 'Alarm Input' section has radio buttons for 'Enable' (selected) and 'Disable', a '[Type]' dropdown with 'Normal Close(NC)' selected, a '[Name]' text box containing 'Sensor', and a 'Test' button. The 'Alarm Output' section has radio buttons for 'Enable' (selected) and 'Disable', a '[Linkage]' dropdown with 'Alarm Input + Motion' selected, a '[Duration Time]' dropdown set to '5' with 'Seconds' next to it, and 'Test ON' and 'Test OFF' buttons. A 'Save' button is located at the bottom right of the configuration area.

[Pic. 4-20] Alarm In/Out Setting

4.12.1 Alarm In

1) Alarm Input

Select alarm input 'Enable' or 'Disable'.

2) Type

Select Normal Close(NC) or Normal Open(NO).

3) Name

Input the name of equipment for alarm input.

5) Test

Click 'Test' button to test the operation when the alarm event happens.

4.12.2 Alarm Out

1) Alarm Output

Select alarm output 'Enable' or 'Disable'.

2) Linkage

- **None** : Alarm output function doesn't operate relating alarm input or motion event.
- **Alarm in** : Alarm output function operates only by alarm input event.
- **Motion** : Alarm output function operates only by motion event.
- **Alarm in + Motion** : Alarm output function operates by both alarm input and motion event.

3) Duration Time

Set duration time upon alarm events.

4) Test on

Alarm output is activated by compulsion and you can check the action internally.

5) Test off

Alarm action will be terminated.

Click '  ' button to save.

- [Reference]
- Alarm input is the same meaning with sensor or sensor input.
 - Alarm output is the same meaning with relay.
 - Alarm event is the same meaning with alarm input or motion event.

4.13 Recording Function

Administrator's Page

Alarm Record Setting

- Recording Function**
 - Enable Disable * MPEG recording only
- Recording Interlocking**
 - Alarm Input
 - Motion
 - Alarm Input & Motion
- Server**
 - Alarm Server
 - FTP
 - Server Address
 - Directory
 - User ID
 - Password

[Pic. 4–21] Alarm Record Setting

4.13.1 Recording Function

Select recording 'Enable' or 'Disable' upon alarm events.

4.13.2 Recording Interlocking

- 1) **Alarm Input** : Record by events only upon alarm input.
- 2) **Motion** : Record by events only upon motion detection.
- 3) **Alarm Input & Motion** : Record by events upon alarm input and motion detection.

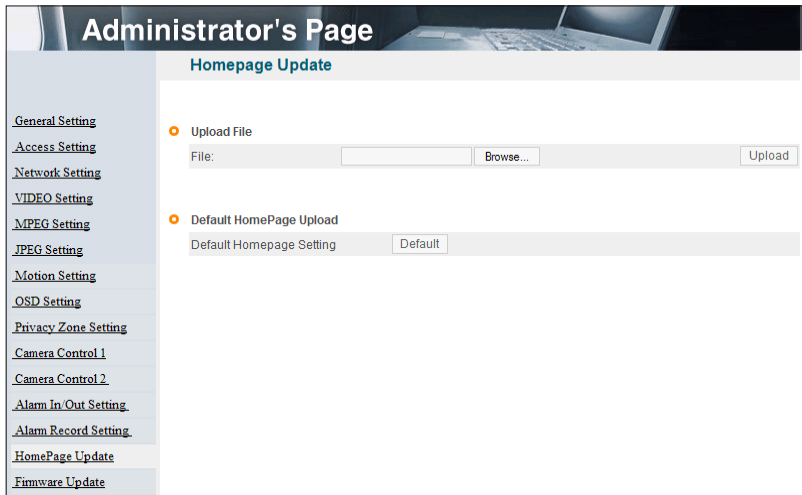
4.13.3 Server

- 1) **Alarm Server** : Input domain name of alarm server to send message when the alarm event happens.
- 2) **FTP Server** : To send the recorded video to FTP server upon alarm event, Input FTP server address, folder name, user IP and password, FTP folder name(mandatory).

[Reference] Please refer Chapter 6. Registered Camera Resource Check to use recorded data in FTP server.

Click ' ' button to save.

4.14 Homepage Update



[Pic. 4-22] Homepage Update

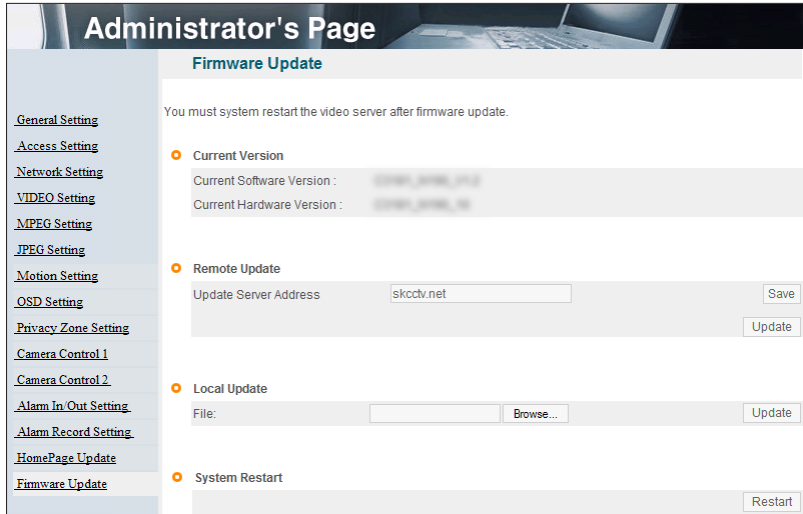
Homepage update function is for user to upload the main page of the unit onto user's homepage.

User's homepage is composed of 3 files as like index.html, top.htm, main.htm. The file for user to use is main.htm. After making web page(main.htm) and save it as file name of main.htm, upload by the function of 'Homepage Update', then main.htm page is to be the 1st main page of the camera(Image file is not uploaded.). User homepage cannot exceed 300Kbyte and 800x600(Image size).

If user wants to re-make user's homepage into default, click 'Default Home Page Upload'.

4.15 Firmware Upgrade

In case firmware is upgraded in the near future, our upgrade server (<http://skcctv.net>) will automatically upgrade firmware of the unit, Upgrade is only supported via internet.



[Pic. 4–23] Firmware Update

1) Current Version

Display current software and hardware version.

2) Remote Upgrade

Upgrade server address is "skcctv.net" as default address.

If there is the wrong address, re-check and input the address and click 'Save' button.

Click 'Update' on 'Remote Update' and the message is displayed as follow.



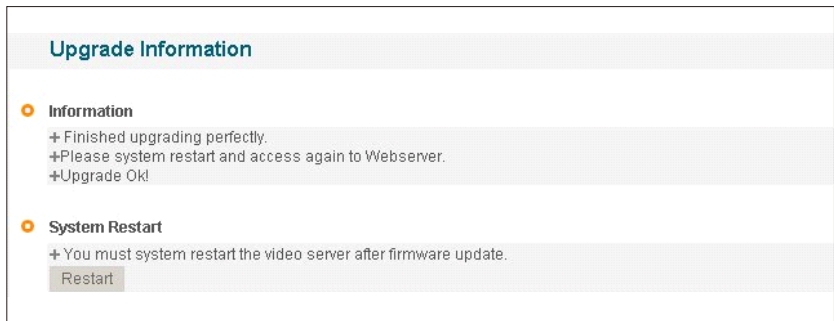
[Pic. 4–24] Firmware Remote Update

This will be automatically upgraded upon clicking 'Download' button after connecting to upgrade server and checking version.



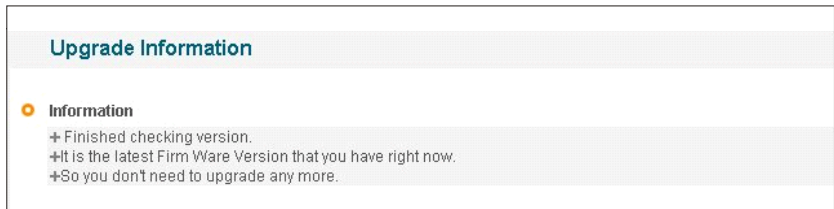
[Pic. 4–25] Firmware Download

'Downloading' message will be shown until completion of update(it may take time according to network situation). Upon completion of upgrade, there appears message showing upgrade result. Message as follow is showing that upgrade has been correctly done. Click 'Restart' in 'System Restart' to restart System.



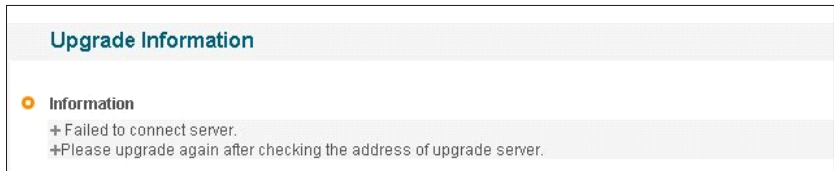
[Pic. 4–26] Upgrade completion

If picture is displayed as follow, it means that this unit has been upgraded to the latest version, there is no need to update any more.



[Pic. 4–27] Check of upgrade version

If user found message as follow, there is a error in connection to upgrade server, re-check internet connection or DNS server address in '3. Network Setting' and try to upgrade again. If user keep finding message as follow or cannot upgrade, contact an authorized technician.



[Pic. 4-28] Upgrade server connection error

3) Local Upgrade

This way is to use software file on user's PC to upgrade (Regarding procedure, refer to remote firmware upgrade.).

In case of upgrade sequence, choose new software file with "Search" button and press "Upgrade" button. Restart the camera after upgrade completion message. In case of local upgrade, it does not care firmware version.

4) System Restart

This is the function to restart the camera system.

Chapter 5.

IP Finder & DDNS Server Setting

5.1. Use or IP finder 78

5.2 Use of DDNS server 83

Chapter 5. IP Finder & DDNS Server Setting

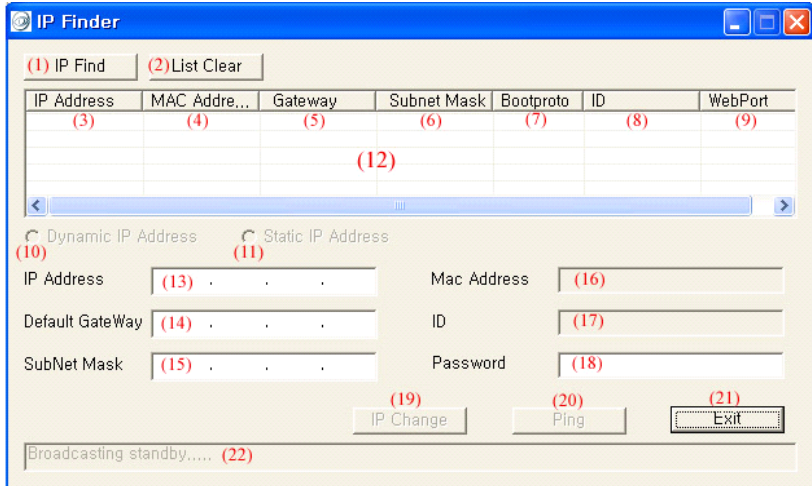
5.1. Use of IP finder

This program is the utility to find out the unit connected to local network. It is useful for the application of the unit connected by DHCP function.

It can provide you the information such as IP address, MAC, web port for easy installation and use.

5.1.1 Run IP finder program

Double click "IP Finder" file to open the program, [Pic. 5-1] will be shown.



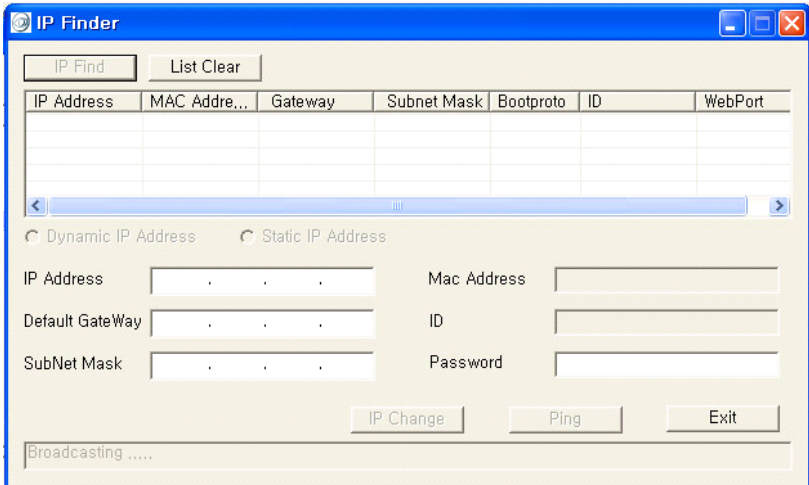
[Pic. 5-1] IP Finder

Description of IP finder function

No	Description	No	Description
1	Find IP	12	List of the unit
2	Delete the list	13	Input IP address
3	IP address of the unit	14	Input Gateway
4	MAC information of the unit	15	Input SubNet Mask
5	Gateway	16	MAC address information
6	Subnet Mask	17	Administrator ID
7	Static IP/Dynamic IP	18	Administrator password
8	Administrator ID	19	Change the information to setting values on 13,14,15
9	Port number to connect to web	20	Test of communication(Ping)
10	Set dynamic IP	21	Exit the program
11	Set static IP	22	Status of the program

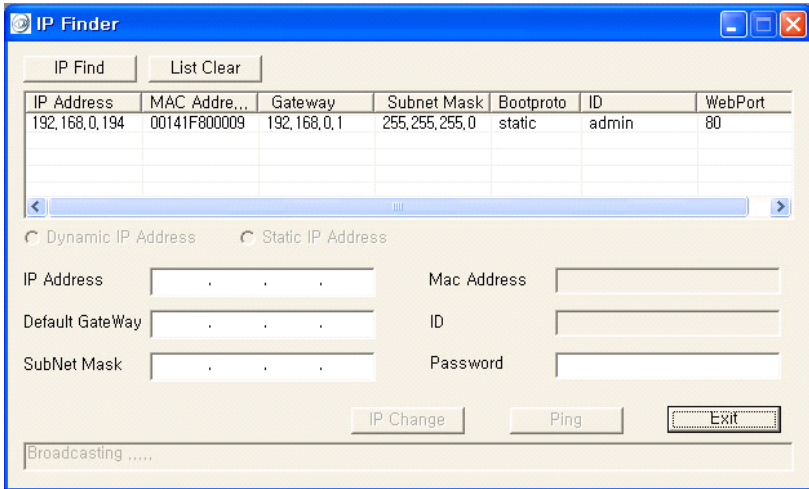
5.1.2 Find IP address

Click button to find IP address of the unit on local network.



[Pic. 5-2] IP Finding

Below picture will be shown, after IP Finding complete.

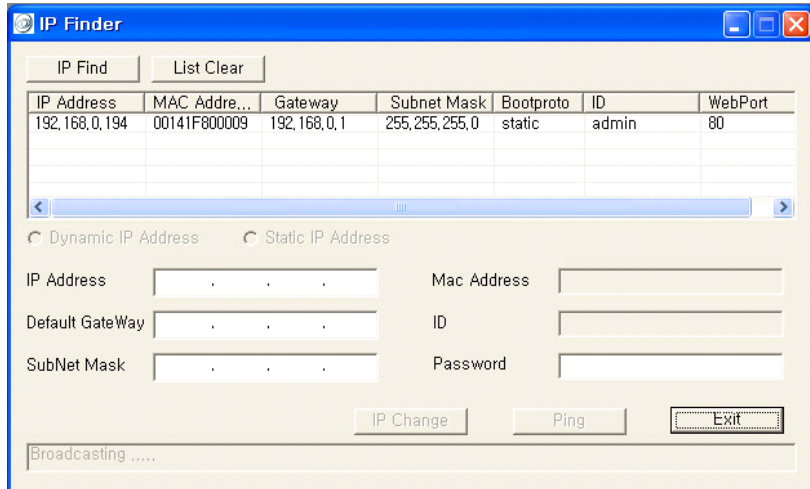


[Pic. 5-3] IP Finding completed

You can connect easily by inputting the information of IP address and web port. In addition, you can get the information of MAC address required on registration of server.

5.1.3 Change IP address

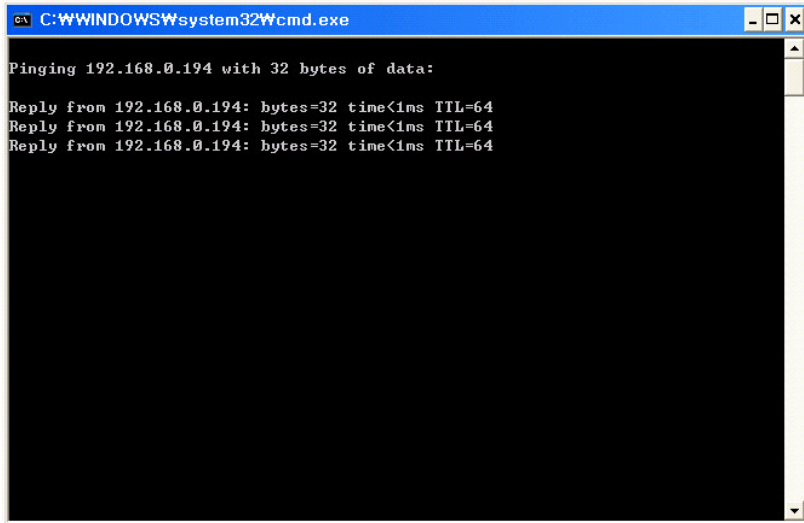
After finding IP address, if you want to change IP address, Gateway or Subnet Mask, double click IP address you want to change and [Pic. 5–4] will be shown.



[Pic. 5–4] Change of IP address

<Procedure>

- ① Input the information you want to change.
- ② Input Password(Password).
- ③ Click button to change the information.
- ④ Click button one more time to check the changed information.
- ⑤ Double click the changed IP address and click button to check.
- ⑥ Click button to exit the program.

A screenshot of a Windows command prompt window. The title bar is blue and contains the text "C:\WINDOWS\system32\cmd.exe" along with standard window control buttons (minimize, maximize, close). The main area of the window is black with white text. The text shows a ping command being executed: "Pinging 192.168.0.194 with 32 bytes of data:". This is followed by three lines of output, each starting with "Reply from 192.168.0.194:" and showing "bytes=32 time<1ms TTL=64". A vertical scrollbar is visible on the right side of the window.

```
C:\WINDOWS\system32\cmd.exe

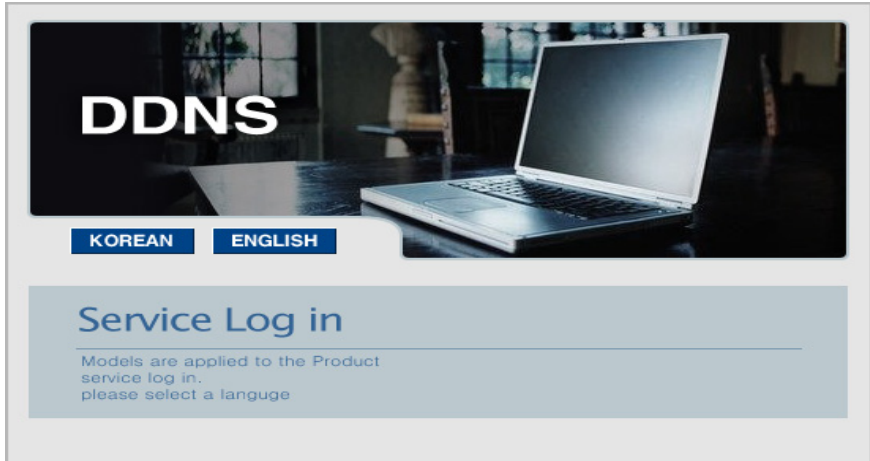
Pinging 192.168.0.194 with 32 bytes of data:

Reply from 192.168.0.194: bytes=32 time<1ms TTL=64
Reply from 192.168.0.194: bytes=32 time<1ms TTL=64
Reply from 192.168.0.194: bytes=32 time<1ms TTL=64
```

[Pic. 5-5] Ping

5.2 Use of DDNS server

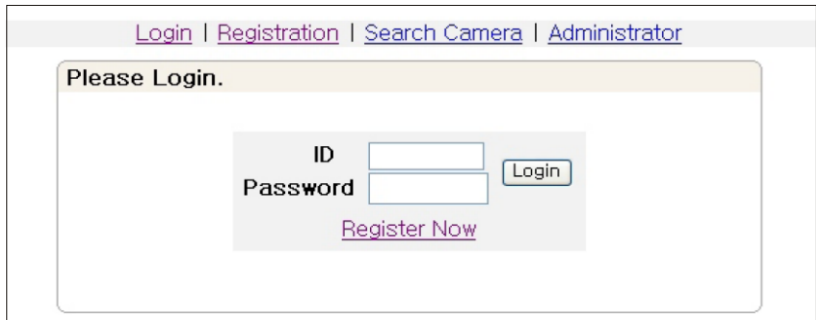
Run web browser and input <http://skcctv.net> in URL and click "Enter", then [Pic. 5-6] will appear as follows.



[Pic. 5-6] DDNS server

Click the language on [Pic. 5-6] user want to use([KOREAN](#) / [ENGLISH](#)).

5.2.1 User registration



[Pic. 5-7] User login

Click "Register Now" in [Pic. 5-7].

If you agree to terms of service you can create an account.

[Agreement]

Before you register our service, you must read this Article carefully,
If you agree with these Articles, then, please fill out registration form of the company

Article 1, (Purpose)

This Article specifies conditions of using and procedure about the service provided by the company.

Article 2, (Effectiveness of article)

After registration, The company should notify its members and get consent from them for effectiveness.

Article 3, (Amendment of Article)

The company can amend this Article and then, put the details of amendment up on the website or give notice for effectiveness.

Article 4, (Making a contract for use)

When you register for the service provided by The company, please press the button of

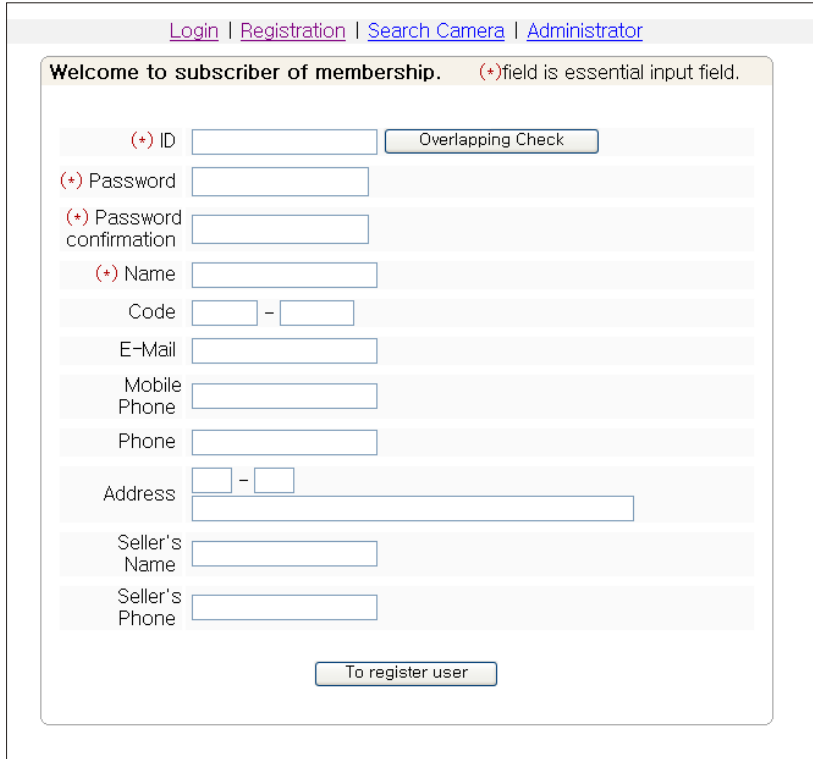
Do you agree with the above Articles?

After agreeing with the Articles,if you fill out registration, you can use the service provided by the company.

Agree, Disagree,

[Pic. 5–8] Agreement

Read the agreement carefully and click "Agree" in case to agree, and go to the next page.



The screenshot shows a web interface for user registration. At the top, there are navigation links: [Login](#), [Registration](#), [Search Camera](#), and [Administrator](#). Below these is a header bar with the text "Welcome to subscriber of membership." and a note "(*)field is essential input field." The registration form consists of several rows, each with a label and an input field. The labels are: (*) ID, Password, Password confirmation, (*) Name, Code, E-Mail, Mobile Phone, Phone, Address, Seller's Name, and Seller's Phone. The (*) ID field has a button labeled "Overlapping Check" next to it. At the bottom of the form is a button labeled "To register user".

[Login](#) | [Registration](#) | [Search Camera](#) | [Administrator](#)

Welcome to subscriber of membership. (*)field is essential input field.

(*) ID

(*) Password

(*) Password confirmation

(*) Name

Code -

E-Mail

Mobile Phone

Phone

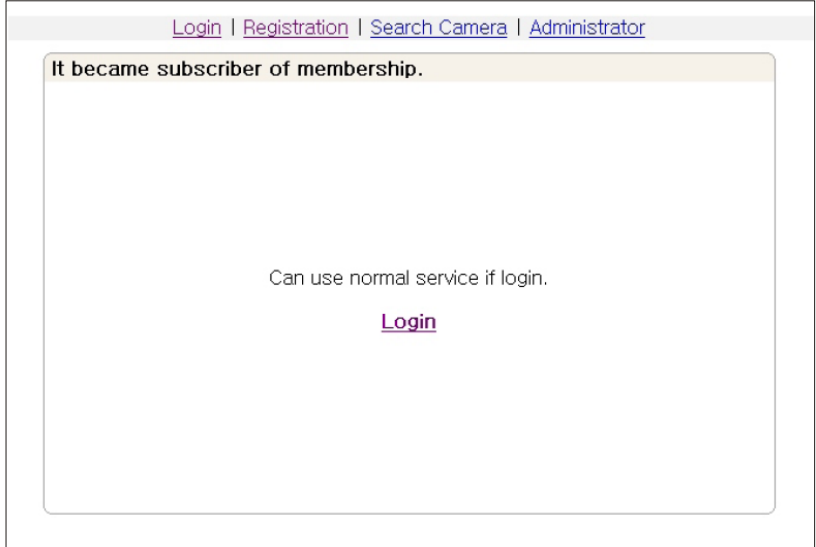
Address -

Seller's Name

Seller's Phone

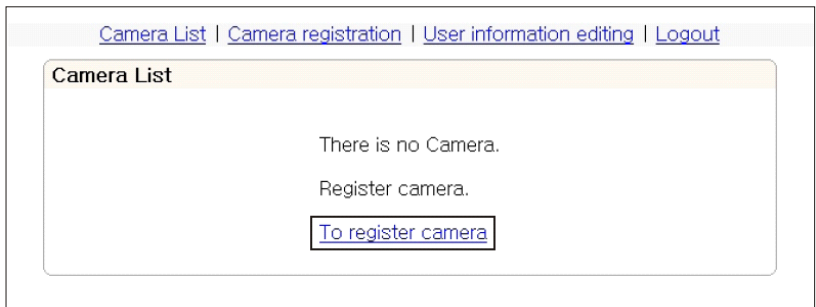
[Pic. 5-9] User registration

The part marked with (*) is mandatory. User ID is to be double-checked overlapping. Then click "To register user".



[Pic. 5–10] User registered

If [Pic. 5–10] appears, User Registration has successfully completed. Click "Login" and input user ID and password on [Pic. 5–11] to connect to DDNS server.



[Pic. 5–11] Log-in succeeded

5.2.2 Camera registration

Click "To register camera" in [Pic. 5–11] to go to Camera Registration Page.

Camera List | Camera registration | User information editing | Logout

To register camera (→)field is essential input field.

(→)Camera Name

(→)Server Name
(Use only English and number.)

(→)MAC ADDRESS (A number that is mixed by 12 seats English and number)

Camera open ENABLE DISABLE

Mobile open ENABLE DISABLE (Not support !)

Connect ID

Connect Password

E-MAIL SERVICE ENABLE DISABLE(If you want E-mail information use, select ENABLE.)

Email1

Message1

Email2

Message2

Email3

Message3

Email4

Message4

Email5

Message5

SMS SERVICE ENABLE DISABLE(Not support!)

Mobile Phone No.1

Message1

Mobile Phone No.2

Message2

Mobile Phone No.3

Message3

Mobile Phone No.4

Message4

Mobile Phone No.5

Message5

[Pic. 5–12] Camera registration

- (1) Input name of the camera you want to use, which will be applied only in DDNS server.
- (2) Server name is to input domain name to connect to the camera.
It is recommended to give the name easy to understand and remember as a domain name because it is available to connect to the unit by domain name in case not knowing IP address of the camera, Domain name should not be duplicated, Register it after checking whether it is duplicated or not.
<Caution> Please don't include special letter to domain name
- (3) It is MAC address given to the camera and checked by IP finder program or Administrator's page.
- (4) This is to check whether the camera is to be open or not.
- (5) This is for the function to connect to monitor or control video of the camera on mobile phone. (This function is not available now.)
- (6) ID and Password to connect to the camera on mobile phone,(This function is not available now.)
- (7) This is the function to send the set message to E-mail address set by user upon alarm.
- (8) This is the function to send the set message(SMS) from DDNS server to mobile phone number set by user upon alarm,(This function is not available now.)
- (9) Click "Camera Registration" to save the registered information after input of all information.
[Reference] SMS and mobile monitoring functions are not available for this model.

5.2.3 List of camera

Input the registered User ID and password to connect to DDNS server on [Pic. 5-2].
[Pic. 5-13] shows the registered list of the camera.

Camera List						To register camera
Number	(1) Name	(2) Editing	(3) Connect	(4) Alarm Log	(5) Delete	
1	test01	Editing	Connect	View	Delete	
2	test_02	Editing	Connect	View	Delete	
3	test_03	Editing	Connect	View	Delete	

[Pic. 5-13] Camera information

- (1) Upon clicking on "Name"(ex: test01), will show the camera Information, "Time" is the latest time for the camera to report to DDNS Server, MAC information, IP address and PORT.

Camera List | Camera registration | User information editing | Logout

Camera Information

MAC	IP	Login PORT				Stream PORT				WEB	TIME
		ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4		
00141F8212C6	59,17,73,196									80	2008-06-27 13:54:08

[Pic. 5-14] Camera information

- (2) On clicking "Editing" on [Pic. 5-13], the page of "Camera Registration" to change the information of camera registered, will appear. Change the information and click "Camera Change" to save the new information.
 "MAC" is not changeable. To change "Server Name", double-check is required.
- (3) Upon clicking "Connect" on [Pic. 5-13], the main page will appear.
- (4) Upon clicking "View" of "Alarm Log" on [Pic. 5-13], event information transmitted to DDNS server is to be displayed. Event information is to be saved up to 30. In case of full saving up to 30, it overwrites the oldest one.

Camera List | Camera registration | User information editing | Logout

Alarm log list

MAC ADDRESS : 00141f800011

<input type="checkbox"/>	Number	Time	Alarm kind	Channel	DownLoad
<input type="checkbox"/>	1	2006-06-02 13:10:08	MOTION	1	Video , Audio

[Pic. 5-15] Alarm log list

"Alarm Log List" shows the information of a channel, alarmed time, type of alarm. It is available to delete the log file. The camera sends the recorded files, dividing into video file and audio files, to DDNS Server. In case there is no recorded file, the message will show "No File". In case the file has not sent to DDNS server yet, the

message "Upload" will be shown. If Video and Audio have been downloaded in "Download" of [Pic. 5-15], user can download and see the recorded file. There are Differences on transmission time according to the network environment,(This function is not valid.)

(5) "Delete" of [Pic. 5-13] is to delete the camera from the list.

[Reference] · Downloaded video file can be played by supplied player, the CMP.
· Audio is not available for this model.

5.2.4 Change of User's information

On clicking "User information editing" in upper menu of [Pic. 5-13], [Pic. 5-16] will appear the page to change user's information.

Camera List | Camera registration | **User information editing** | Logout

Change User information (*)field is essential input field.

(*)ID test

(*)Password *****

NAME test

E-Mail

Mobile Phone

Phone

Address -

Seller's Name

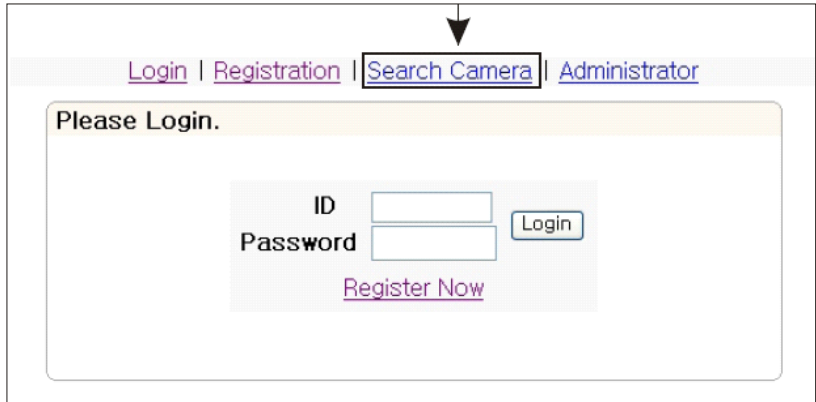
Seller's Phone

To change information

[Pic. 5-16] Change user's information

Save User's information by clicking "To change information" after changing user's information.

5.2.5 Search camera



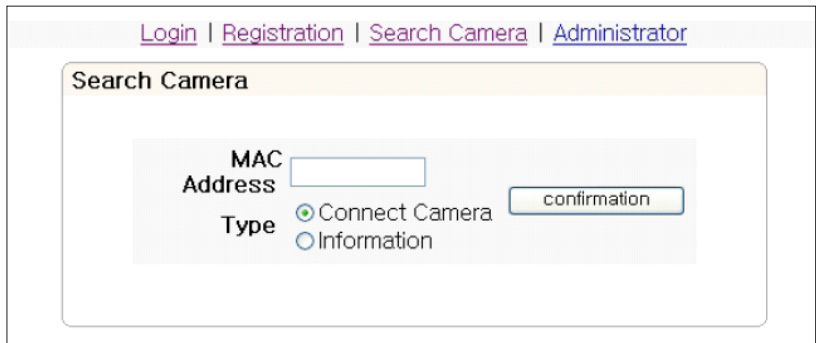
[Login](#) | [Registration](#) | **[Search Camera](#)** | [Administrator](#)

Please Login.

ID
 Password
[Register Now](#)

[Pic. 5-17] Login page

"Search Camera" of [Pic. 5-17] is the function to see information or connect directly to the camera without user registration in DDNS Server. Upon clicking "Search Camera", [Pic. 5-18] to search camera will appear.



[Login](#) | [Registration](#) | **[Search Camera](#)** | [Administrator](#)

Search Camera

MAC Address
 Type Connect Camera Information

[Pic. 5-18] Search camera

"Type" on [Pic. 5-18] is to select "Connect Camera" to connect directly to the camera using MAC Address, and then to input MAC Address and click "Confirmation", then the camera will be directly connected.

If user want to see information of the camera by MAC address, select "Information" and input MAC address of the camera to see information on, and click "Confirmation". Then information of the camera will be shown as [Pic. 5-18].

Camera List Camera registration User information editing Logout											
Camera Information											
MAC	IP	Login PORT				Stream PORT				WEB	TIME
		ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4		
00141F8212C6	59.17.73.196									80	2008-06-27 13:54:08

[Pic. 5-18] See information

Chapter 6.

Basic Network

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Chapter 6. Basic Network

This chapter is the basic explanation for installation.

6.1 Allocate IP address

All hosts connected to internet have the exclusive number called IP address.

Communication among hosts is available by using it. There are two ways to allocate IP address. IP address is fixed by the way of static IP address whenever connected to internet. This way is easy to control network, but hard to use IP address effectively.

IP address is changeable by the way of dynamic IP address whenever connected to internet. This way is hard to control network, but easy to use IP address effectively.

In case of dynamic IP address, DHCP function should be supported by IP sharing device or server.

[Reference] Host means not only PC but PDA, mobile phone, and all devices using internet.

6.2 Public IP / Private IP

Public IP is the exclusive IP that you can connect anywhere internet is available. Private IP is the way for a private person to give IP address to host by IP sharing device or server. In this case, IP sharing device uses only one public IP. Private IP is allocated such as 192.168.xxx.xxx, and can not be used as public IP.

6.3 Leased line environment

Usually company, university, or research center uses leased line. They use many public IP address. In this environment, static IP and dynamic IP are all available.

Please check from network administrator which way is available(Refer to Check Network and Installation Type).

It can not be available by fire wall. In this case, ask network administrator if open port or not.

6.4 Broadband modem(ADSL, Cable, Fiber Optic modem) environment

Home, store, small office use one broadband modem(DSL, cable modem), and use one public IP address normally. In order to use several PC through one public IP address, the user in most cases use IP sharing device.

We recommend using an IP router(IP sharing device) for installation. There may be a case in no need of router, but most people use the unit and other PC 1set or more. When using the router, connect the router and input IP address of the unit(IP address of the unit is set as 192.168.1.8 on ex-factory) in DMZ menu.

If the user cannot use the DMZ function because there is no DMZ menu in the router or some other reasons, go into Port Forwarding or NAT menu on the router and map the port of the unit one by one.

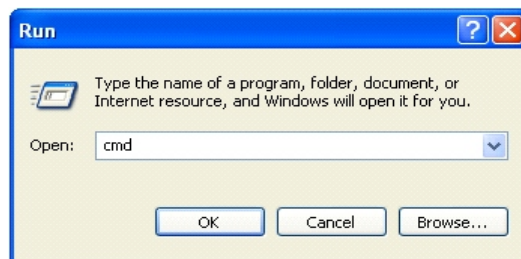
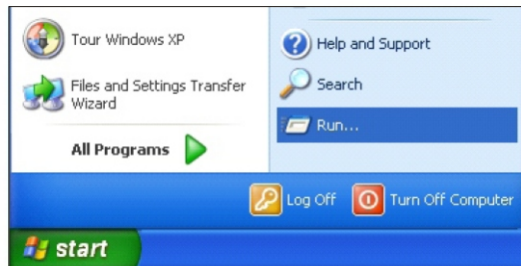
6.5 Ping test

Ping is the test to check response among the devices connected with network.

Input "Ping IP address" to command window of PC and check response.

In case of Ping failure, there is some communication problem between the devices.

By firewall, this test can not be available.



```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>

```



```

C:\WINDOWS\system32\cmd.exe
C:\>ping 192.168.1.8

Pinging 192.168.1.8 with 32 bytes of data:

Reply from 192.168.1.8: bytes=32 time<1ms TTL=64
Reply from 192.168.1.8: bytes=32 time=2ms TTL=64
Reply from 192.168.1.8: bytes=32 time<1ms TTL=64
Reply from 192.168.1.8: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>

```

[Ping Failure]



```

C:\WINDOWS\system32\cmd.exe
C:\>ping 192.168.1.8

Pinging 192.168.1.8 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.8:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
C:\>
C:\>
C:\>

```

[Ping Success]

Chapter 7.

Appendix

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Chapter 7. Appendix

7.1 Basic setting table

Item	Default(Basic setting)	Remarks
ID and password		
Static IP / Dynamic IP	Static IP	
IP Server	Enable	
IP address	192,168,1,8	
Gateway	192,168,1,1	
Subnet Mask	255,255,255,0	
Web Connection Port	80	<ul style="list-style-type: none"> · Do not duplicate the same Port, · Use the number under 9999 of port.
Authentication Control Port Video Streaming Port	9000	
ID and password		
Administrator ID/Password	admin/admin	
User ID/Password	root/root, guest/guest	
Domain of Related Server		
IP Server	skcctv.net	Domain of server to connect to register IP.
Alarm Server	skcctv.net	Domain of server to connect to send, Event upon detection of sensor or motion,
Upgrade Server	skcctv.net	Domain of server to connect to download upgraded program.
Plug-in Download Server	skcctv.net	Active-x
Video setting		
Compressed	MPEG : VGA, MJPEG : SXGA	
Frame Rate	NTSC : VGA 30fps, SXGA 15fps PAL : VGA 25fps, SXGA 12,5fps	
Bit Rate		
Other setting		
Time Zone	Asia/Seoul(Korea)	

[Reference] In case to reset hardware and network setting, ID and password of user and Administrator will be automatically returned to the above default value.

7.2 To solve problem

7.2.1 Booting

Check if power plug is connected correctly.

- ① In case of supplying power after covering up the lens of the camera, you will see glowing IR LED.
- ② Connecting LAN cable to PC or IP sharing device, LINK LED twinkles.
- ③ Repeating power on/off, you can hear "tick-tack" sound from the camera.
- ④ If you can not check the power on from above information, double check the cable and connecting part and try again.

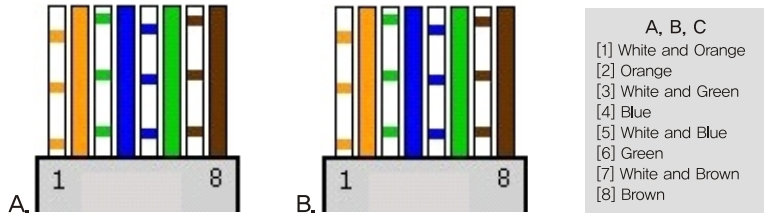
7.2.2 Network cable(LAN cable) and cable connection check

Check if straight LAN Cable or cross cable according to use.

① Cable check

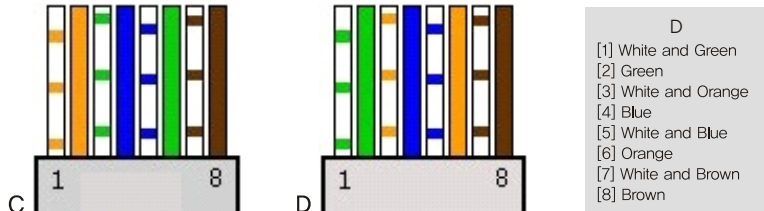
[Straight Cable]

Hold each end of both side and check if same color's cable is connected to same location in RJ45 jack or not.(Connection with IP sharing device or cable modem)



[Cross Cable]

Hold each end of both side and check if 1, 2(Tx+, Tx-) and 3, 6(Rx+, Rx-) are cross or not.(Connection with PC)



② Network Link check

After supplying power, check if Link LED twinkles or not when the camera connects with PC(or IP sharing device).

If Link LED doesn't twinkle, cable is not connected correctly.

7.3 Troubleshooting by type

7.3.1 Cannot connect with network

Check with "7.2.2 Network cable(LAN cable) and cable connection check". [PING Test]

- ① **In case camera uses Static/Public IP** : input "Ping IP address" to command window of PC and check response.
- ② **In case camera uses dynamic/public IP** : User cannot find camera IP address. So, reset hardware and connect PC with the camera through cross cable and ping test by entering "192.168.1.8".
- ③ **In case camera uses private IP through IP sharing device** : do ping test of private IP address set for camera in PC that is connected in the local network through IP sharing device.

[Reference] Please refer to "PING Test of Basic Network".

If "ping test" get response, network setting for camera is done correctly.

Ping test is okay but there is no connection, check with "7.3.2 check port setting".

7.3.2 Check port setting

If user can't connect with camera even though "Ping test" is okay, please check port setting by the following steps.

The unit uses 2 ports as follow.

- **Web Connection Port** : Port 80 TCP
- **Authentication and Control Port** : Port 9000 TCP
- **Video Streaming Port** : Port 9000TCP

① Not available to connect to web

If it is not available even to connect to web, check web connection port because web connection port may be set with other number than "80".

Use IP Finder program.(Default value of web port is "80".)

[Reference] Web port "80" can not be available in some internet service.

In this case, go to the administrator's page and change the web port.

② Problem in video monitoring

In case there is problem in video monitoring even though there is no problem in

web connection, check if "Authentication and Control Port" and "Video Streaming Port" of the unit is set on IP sharing device(Refer to the manual of IP sharing device regarding Port forwarding).

[Reference] It is strongly recommended to register the number under 9999 of port.
Port Number more than "10,000" can not be available in some network.

Chapter 8. Troubleshooting

Problem	Solution
Nothing appears on the screen.	Check if the power cord and line connection between the camera and monitor are connected properly.
The image on the screen is dim	Check whether the window is stained. If dirty, clean the lens with soft and clean cloth.
The image on the screen flickers	Dose the camera face to the sun directly or fluorescent light? Change the camera position.
The contrast on the screen is too weak	Adjust the contrast feature of the monitor. If the camera is exposed under too strong light, change the camera position solution.

※ If you can not solve the problem, please contact an authorized technician.

[Warranty Card]

PRODUCT NAME		NETWORK CAMERA		TERM OF THE GUARANTEE
MODEL NO				
DATE OF PURCHASE				FOR ONE YEAR AFTER THE DATE OF PURCHASE
CUSTOMER	NAME		P/N	
	ADDRES			
SELLER	NAME		P/N	
	ADDRES			

The history of after-sales service		
YEAR	PROBLEM	PERSON IN CHARGE

※ This product will be under warranty for one year after the date of purchase

Please read this manual carefully before installing and using the camera.
Be sure to keep the manual handy for later reference.