3. Input User Name and Password in the display screen shown in Figure 5-2.

Figure 5-2. Log On Screen

Factory default User Name and Password are set as 'root' and 'dw2001', respectively. Click on "OK" button to enter into the Basic Setup page of Administrative Mode. If you have changed the username and password of the Administrator, you must log on with the changed username and password.

5.2. Basic Setup

Setup the basic parameters of the iCanView220/220W.

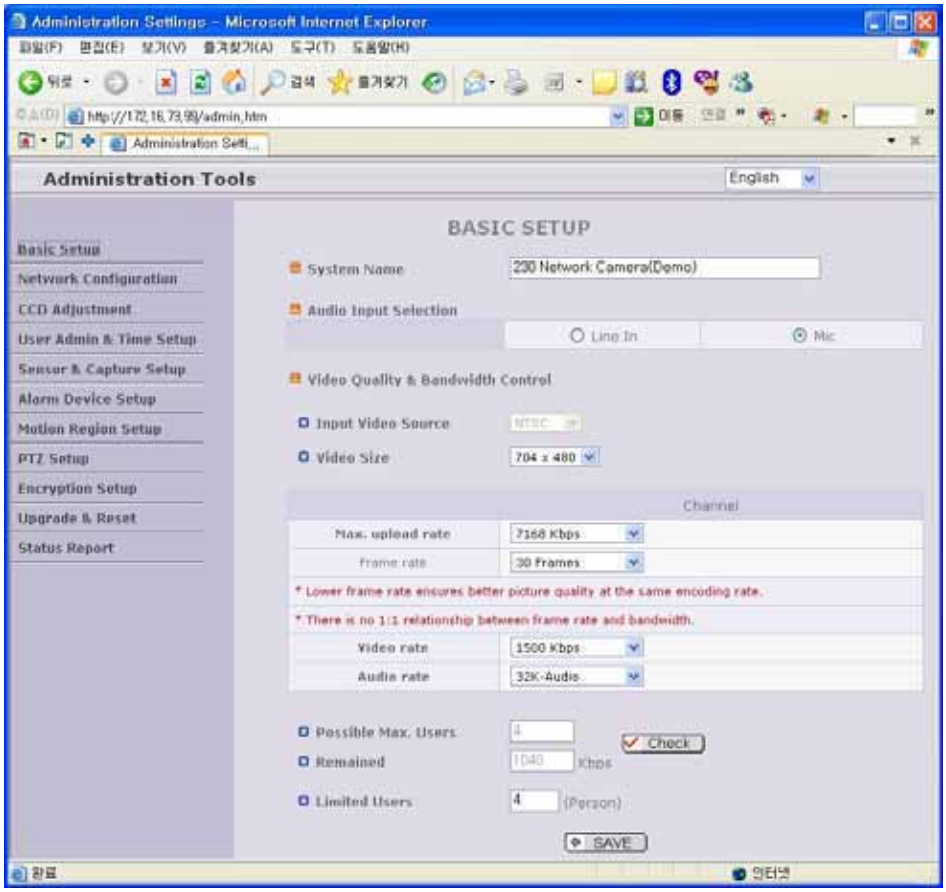


Figure 5-3. Basic Setup

Field/Button	Sub Field /Button	Description
Language		Select a language of your choice
System Name		Logical name of the iCanView220/220W. It is same as the one set-up by IP-installer. You can reassign the system name.
Audio Input Selection		Select the type of input audio. ● Select **Line In** for using Line-out from audio devices. ● Select **Mic** for using microphone.
	Input Video	This filed is set by the factory.

Video Quality & Bandwidth Control	Source	
	Video Size	Select a video size for transmission ● NTSC (30frames/sec Max.) : 176x144 / 352x240 / 704x480. ● PAL/SECAM (25frames/sec Max.) : 176x144 / 352x288 / 704x576
	Max upload rate	Assign maximum bandwidth of the uplink for the network connected to iCanView220/220W.
	Frame rate	Assign number of video frames to be transmitted for each second. You can improve picture quality by lowering frame rate for the same bandwidth.
	Video rate	Assign bandwidth for transmitting video data.
	Audio rate	Assign bandwidth for transmitting audio data. Audio data is not transmitted if you select "**NA**"
	Check	After you finish set up of video and audio for all the channels, click on this box to obtain the possible maximum number of users (**Possible Max Users**) and remaining network bandwidth (**Remained**) remaining when possible maximum users are connected.
	Possible Max Users	It shows the number of maximum simultaneous connections for the network connection set-up.
	Remained	It shows the network bandwidth remaining when Possible Max Users are connected.
	Limited users	Useful network bandwidth varies according to the condition of the network. This parameter is used to limit the number of the simultaneous connections below the number shown in Possible Max Users.
Save		Save the set-up parameters when the set-up parameters are done.

5.3. Network Configuration

Setup the network parameters appropriately in accordance with your network environment. Many of the parameters in this page are same as those set up by "**IP-Installer**".

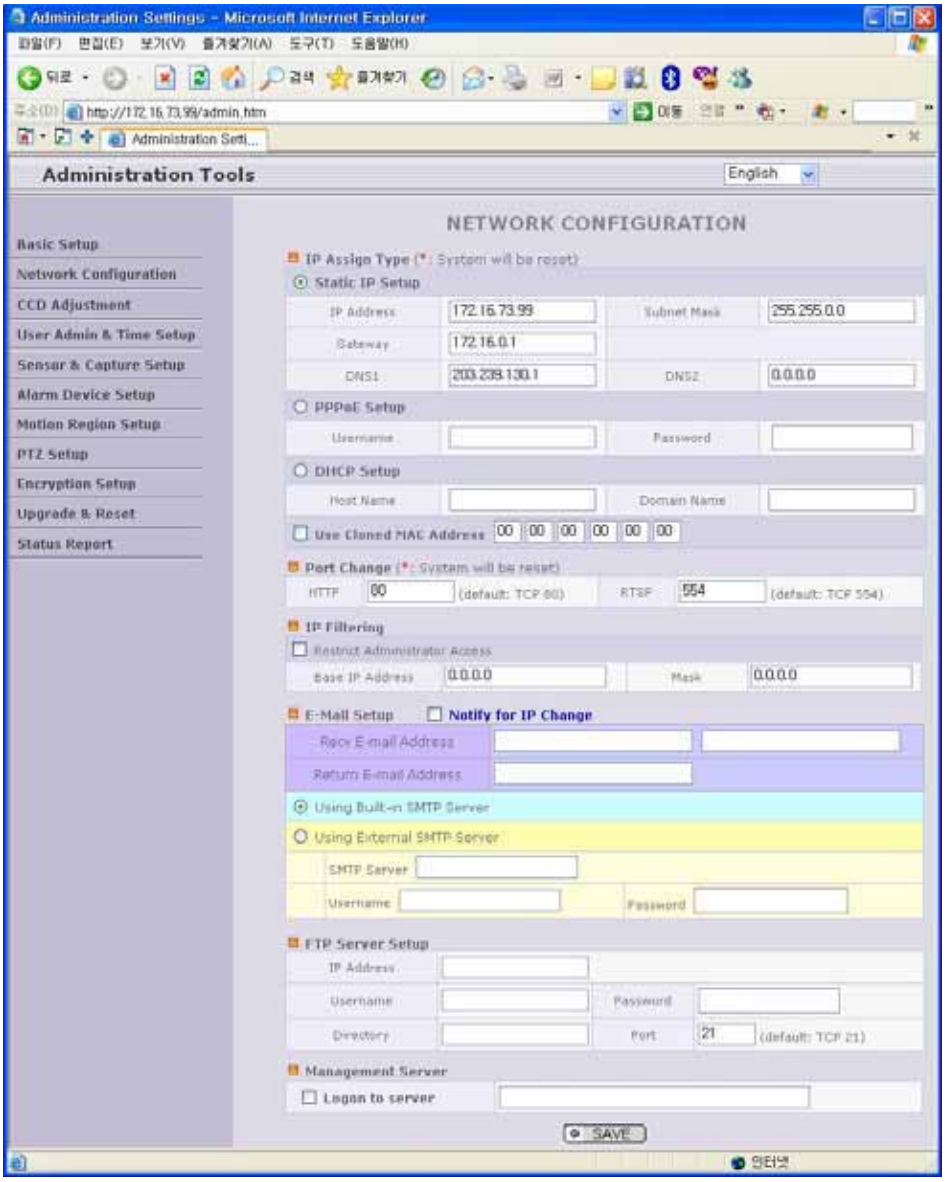


Figure 5-4. Network Configuration

Field/Button	Sub Field /Button	Description
IP Assign Type		The network types supported by the iCanView220/220W are LAN(fixed IP), PPPoE, and DHCP(automatic IP allocation)
	Static IP Set up	When the network environment is fixed IP, select 'LAN' in the network type, and put the IP address, Subnet Mask, Gateway, DNS1 and DNS2. Ask your network administrator or ISP for the information. DNS2 is used when DNS1 does not work.
	PPPoE Setup	When the network environment is PPPoE and IP address is assigned automatically, select 'PPPoE' in the network type. Next, fill in the 'User Name' and 'Password' fields with the values assigned by the ISP.
	DHCP Setup	When the network environment is "automatic IP allocation by DHCP", select 'DHCP' in the network type. For cable modem connection, select this mode. Refer to **[IP-installer user's guide]** for "Host name and domain for Cable Modem
	Clone MAC	Refer to **[IP-installer user's guide]** for "Clone MAC"
Port Change		Each port should have a number below 65,535.
	RTSP	The RTSP port is used for transmitting real time audio/video data from the network camera. Default is 554.
	HTTP	HTTP port is used for the connection to the admin page. Default is 80.
IP Filtering		You can restrict the access to the administrator page from IP addresses beyond certain IP address range.
	Restrict Administrator Access	Check at this box to restrict administrative log on.
	Base IP Address	Input IP address of the PC which is intended to be used for log on to administrative mode.
	Mask	This is same as subnet mask. It is used to allow administrative log on only to the PCs located in the same subnet as the base IP address. If you want to allow only one PC to access in administrative mode, set this value to 255.255.255.255.
E-Mail Setup		

	Notify for IP Change	If you check this, the IP address will be sent via E-mail whenever the IP address changes. It is sent to the E-mail address set by "**Recv E-Mail Address**".
	Recv E-Mail Address	Enter E-mail address to receive information sent from your network camera. This is same as E-mail field in IP-installer.
	Return E-Mail Address	Fill in this field with correct e-mail address to identify the mail sent from the network camera
	Using Built-in SMTP Server	If you are using web mail services having no SMTP server, check the radio button at the left of "**Using Built-in SMTP Server**" and enter valid e-mail address to avoid spam filtering on the receiving e-mail server.
	Using External SMTP Server	If you are using external mail server, fill in the fields with proper parameters.
FTP Server Setup		Setup IP address, Username, Password and Directory of FTP server to send data in case of alarm. Default FTP port number is 21.
Management Server		You can register the network camera to the Management Server (DDNS Server) for name service to your network camera.
	Log on to server	Check this box to enable log on to the management server. By log on to the management server your network camera can use domain name instead of numeric IP address. This feature is particularly useful when your network camera is using dynamic IP address. Input valid management server (DDNS Server) name for the service. You must have an account on the management server (DDNS Server) and register your IP video devices under your account to use this feature. Domain name of your network camera can be assigned when you register your network camera to the management server under your account. One of the servers available is **mgmt.net-video.net**. For opening an account, visit **www.net-video.net** .

5.4. Wireless Configuration (iCanView220W only)

For the case of a network camera having built in wireless LAN it is needed to set up wireless LAN configuration parameters. Click "**Wireless Configuration**".

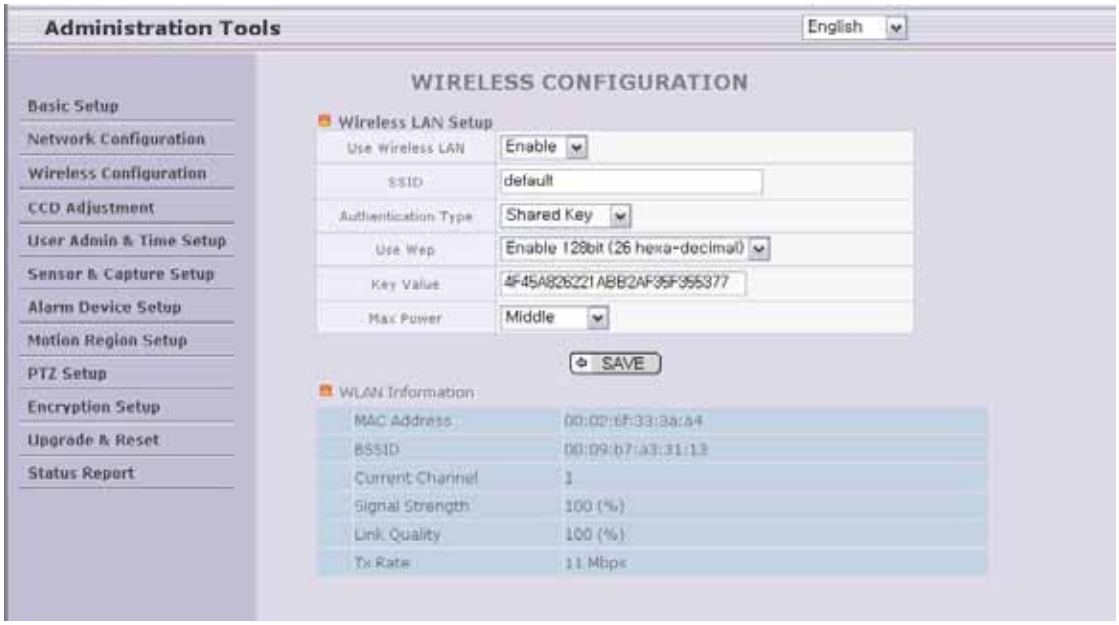


Figure 5-5 Wireless Configuration

- **Wireless LAN Setup**

  Set up parameters for wireless LAN.

  - **Use Wireless LAN** : Select "Enable" to use wireless interface. If "Disable" is selected, Ethernet interface is used instead of wireless LAN interface.
  - **SSID** : Enter the ID of the wireless LAN access point to be connected, when wireless LAN interface is selected.
  - **Authentication Type** : Select the type of authentication.
  - **Use WEP** : Select the mode of WEP. If WEP is not used select "Disable"
  - **Key Value** : Set the value of WEP Key.
  - **Wireless Power** : Set the maximum transmission power level of Wireless LAN.

- **WLAN Information**

  Information regarding wireless LAN interface is displayed.

  - **MAC Address** : Indicates MAC address of the Wireless LAN card.

- **BSSID** : Indicates the ID of the connected Access Point. In general the MAC address of the Access Point is shown.
- **Current Channel** : Indicates the channel number of present connection.
- **Signal Strength** : Indicates the strength of the received signal.
- **Link Quality :** Indicates the quality of the Link level.
- **Tx Rate :** Indicates the speed of the latest transmission.

5.5. CCD Adjustment (This is not related with iCanView220/220W)

*You can optimize the quality of input video by adjusting the parameter of CCD. To enter into this mode, click "**CCD Adjustment**" in administrative page. You will find a screen shown in Figure 5-6.*

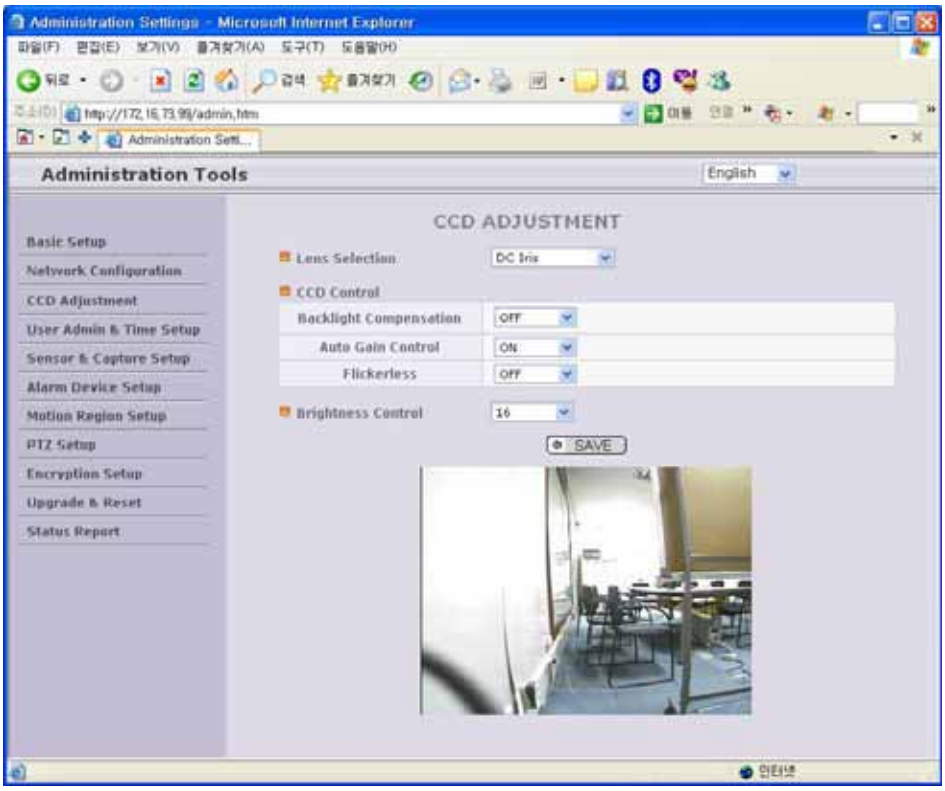


Figure 5-6. CCD Adjustment

Field/Button	*Sub Field /Button*	*Description*
Lens Selection		*Standard iCanView220/220W is delivered with lens. Any lens having C or CS mount type can be installed on iCanView220/220W.* *A C-CS adaptor is packaged with iCanView220/220W for accommodating CS type lens.* *Confirm whether your lens is Non DC IRIS or DC IRIS lens before your selection and then click "SAVE" to save your*

		selection.
	DC IRIS Lens	DC IRIS lens is a kind of auto IRIS lens. Opening of IRIS can be adjusted by applying DC voltage. The opening of IRIS is optimally adjusted by detecting the signal level from CCD. This type should be selected when DC IRIS lens is mounted on your iCanView220/220W.
	Non DC IRIS Lens	Non DC IRIS lens is a fixed IRIS lens. Non DC IRIS lens is factory default selection.
CCD Control	*Backlight Compensation*	*When the camera is acquiring video from object with bright backlight, it is hard to identify the details of target object since the object appears very dark. Apply backlight compensation mode for this case. Default mode is backlight compensation Off.*
	Auto Gain Control	*If you set the value to ON, the gain is automatically adjusted in accordance with the illumination condition.*
	Flickerless	*In case of using NTSC type iCanViewV220 in 50Hz AC regions or using PAL type iCanView220/220W in 60Hz AC region, video output tends to flicker when iCanView220/220W is used under fluorescent lamps. This mode reduces the flickering phenomena. If this mode is selected, electronic shutter speed is set to 1/100 sec for NTSC camera while it is set to 1/120 for PAL camera to synchronize the shutter speed to AC current.* *<Note> : Make sure that you apply this mode only when using NTSC camera in PAL region or PAL camera in NTSC region.*
Brightness Control		*Adjust the amount of light reaching CCD manually.* *Select the value between 1 and 32. For brighter video select higher number.*
SAVE		*Click "SAVE" to save your selection.*

5.6. User Admin & Time Setup

You can change the ID and password of users and also assign different attributes for each user.

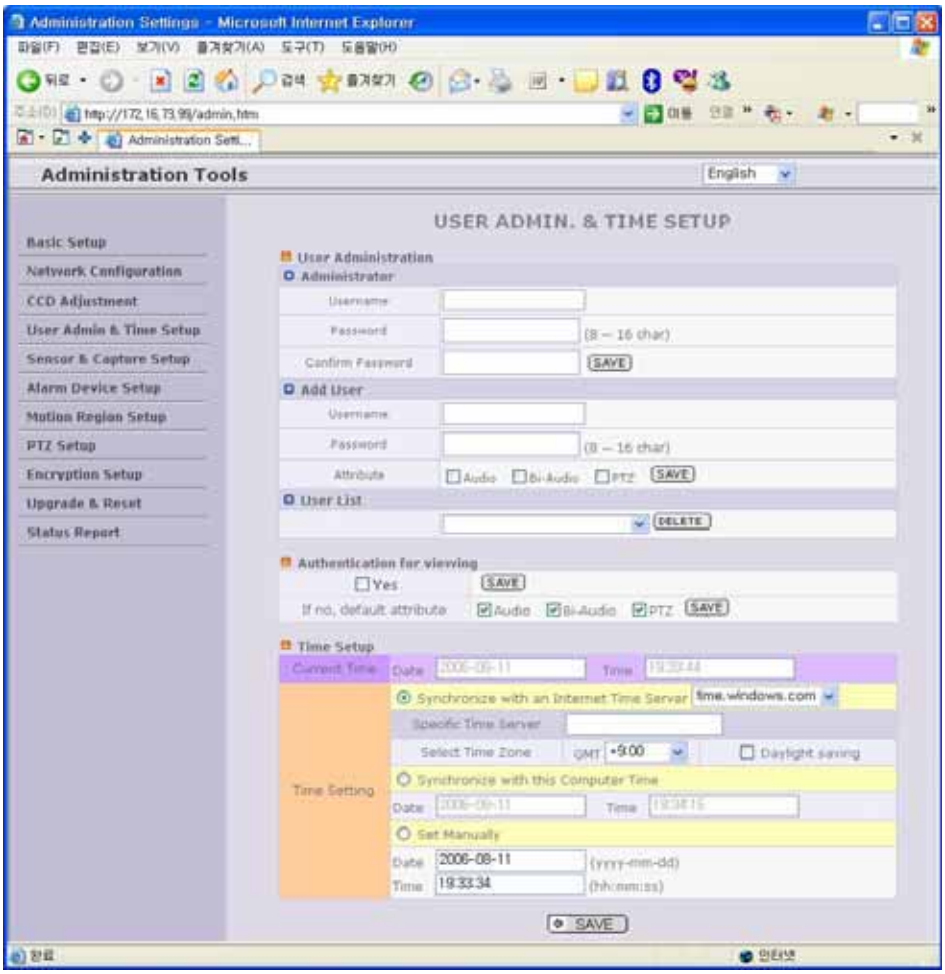


Figure 5-7. User Admin. & Time Setup

Field/Button	Sub Field /Button	Description
User Administration	Administrator Username	Admin ID. Default ID is "root"
	Administrator	Admin password. The default password is "dw2001".

	password :	
	Administrator Confirm Password	Enter the password once more to confirm the password.
	Add User Username	Enter the user ID you want to add. Up to 100 users are supported by iCanView220/220W.
	Add User Password	Enter the user password.
	Add User Attribute	You can set different system resource access capabilities for each of the users. ● Attributes are Audio, Bi-directional Audio and Pan/Tilt control. ● For example, if you want a specified user to hear the audio from the iCanView220/220W, check Audio in the check box.
	User List	You can list "user ids" and " their attributes" here. ● format : user id[A, BA, P] : ■ A – audio, ■ B – bi-directional audio, ■ P – ptz, attribute. You can delete specific user by clicking the **DELETE** button.
Authentication for Viewing	YES **SAVE**	If you want to restrict viewing access to the iCanView220/220W, check at the box left to **Yes** and click on **Save**. Users need to input ID and password to connect to iCanView220/220W in viewing mode in a pop up window as shown below.. **Figure 5-8. User Authentication in iCanView220/220W**
	If No, default attribute	If you uncheck for the Authentication for Viewing, all users can access the iCanView220/220W with the same attribute set

		here. Checked attributes are enabled. Click "**Save**" to save the attribute.
Time Setup	Current Time	It shows you the current time of iCanView220/220W.
	Synchronize with an Internet Time Server	Synchronize the time with the internet time server at the right. When the time server is out of the reach from iCanView220/220W, you can assign time server by filling in **Specific Time Server** field.
	Synchronize With this Computer Time	Synchronize the time with the time of the PC.
	Set Manually	Set the time manually. Fill in the fields with desired formats.
SAVE		Save the set up parameters
If you lost Administrator's ID and password, the only means of recovery is to reset the settings to factory default, but then you lose your previous settings.		

5.7. Sensor & Capture Setup

This is the setup page for sensors and video capture conditions. Captured video can be sent to user by FTP or E-mail upon configuration.

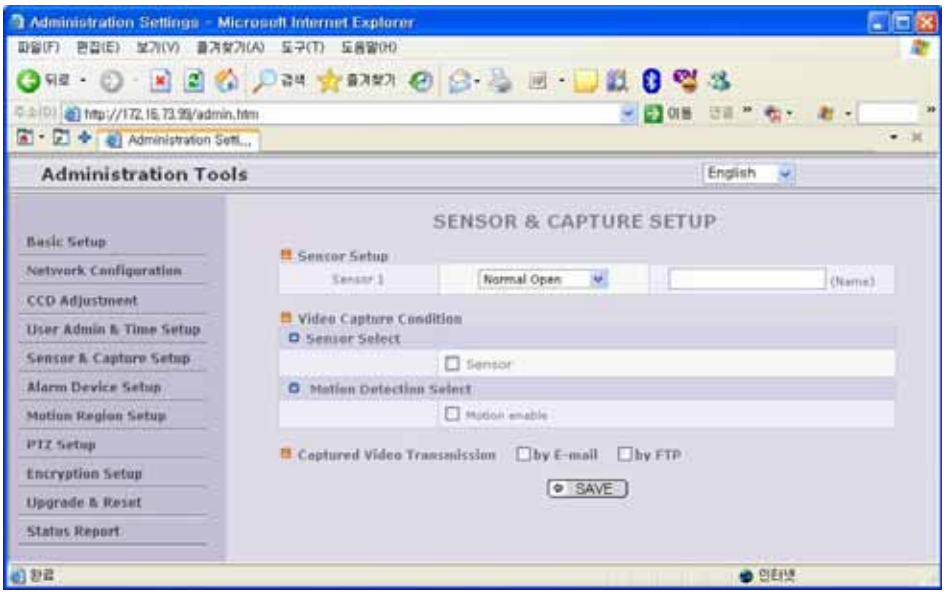


Figure 5-9. Sensor & Capture Setup

Field/Button	Sub Field /Button	Description
Sensor Setup	Sensor 1	Select sensor type. There are two types of sensors which are **Normal Open** and **Normal Close.**
	Name	Input logical name for the sensor.
Video Capture Condition		It sets the condition of video transmission via FTP or E-mail. The iCanView220/220W supports 2 types of conditions which are mutually independent. 1. Sensor initiated: when at least one of the sensor detects alarm condition. 2. Motion-Detection initiated : when motion is detected from video channel

	Sensor Select	Check to enable Sensor initiated capture.
	Motion Detection Select	Check to enable motion detection initiated capture.
Captured Video Transmission		Select a way of sending captured video. You can send captured video through FTP or E-mail, or both. -
	By E-Mail	Check to send captured video by e-mail. E-mail is sent to the **Recv E-mail address.** Refer to **[Section 5.3.]** Captured video data for E-mail consists of intra frames only in consideration of the limited storage space for E-mail account. FTP data contains entire video frames.
	By FTP	Check to send captured video by FTP. FTP is sent to the **FTP** Server. Refer to **[Section 5.3.]** If the FTP server is not properly assigned in "**Network Configuration" mode**, iCanView220/220W ignores the video transmission by FTP
SAVE		Save the setup parameters.

5.8. Alarm Device Setup

Test the alarm output and describe the condition of alarm annunciation

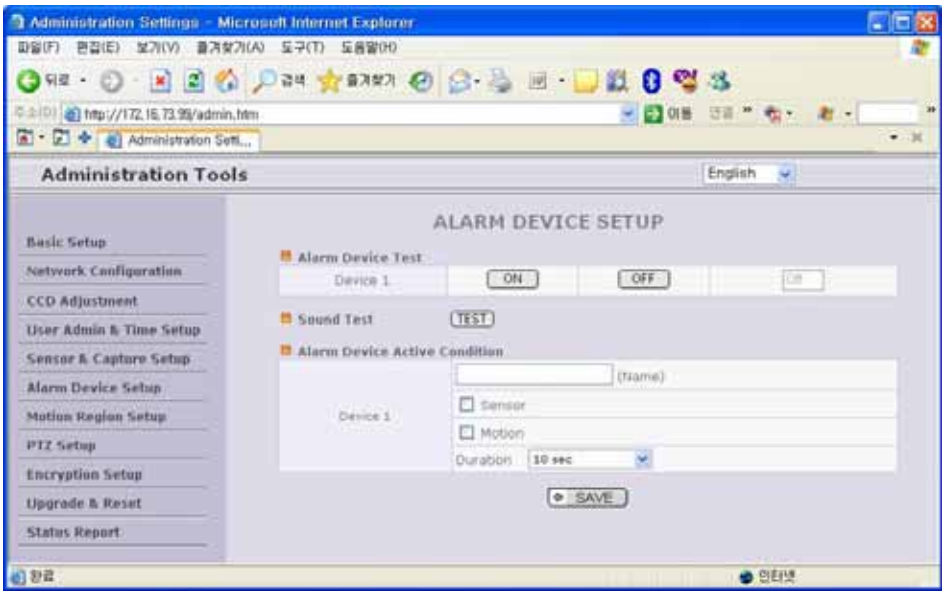


Figure 5-10. Alarm Output Setup

Field/Button	Sub Field /Button	Description
Alarm Device Test		Test alarm devices. Click on On/Off for testing Small box with white background indicates the status of the relay by On/Off.
	ON	On the alarm output (close the relay contact)
	OFF	Off the alarm output (Open the relay contact)
Sound Test		
Alarm Device Active Condition		Setup the condition of activating alarm device. Select sensor or motion detection as the condition.
	Name	Logical name of the alarm device can be input into the box at the left.
	Sensor	Check at the box at the left of to allow alarm generation upon sensor input.
	Motion	Check at the box at the left to allow alarm generation upon

		Motion detection
	Duration	Set the duration of Alarm annunciation. 10 sec, 30 sec, 1 min, 2 min, 5 min, 10 min, 30 min, 1 hour.
SAVE		Save the setup parameters.

5.9. Motion Region Setup

Set the motion detection regions. Up to 3 regions can be defined.

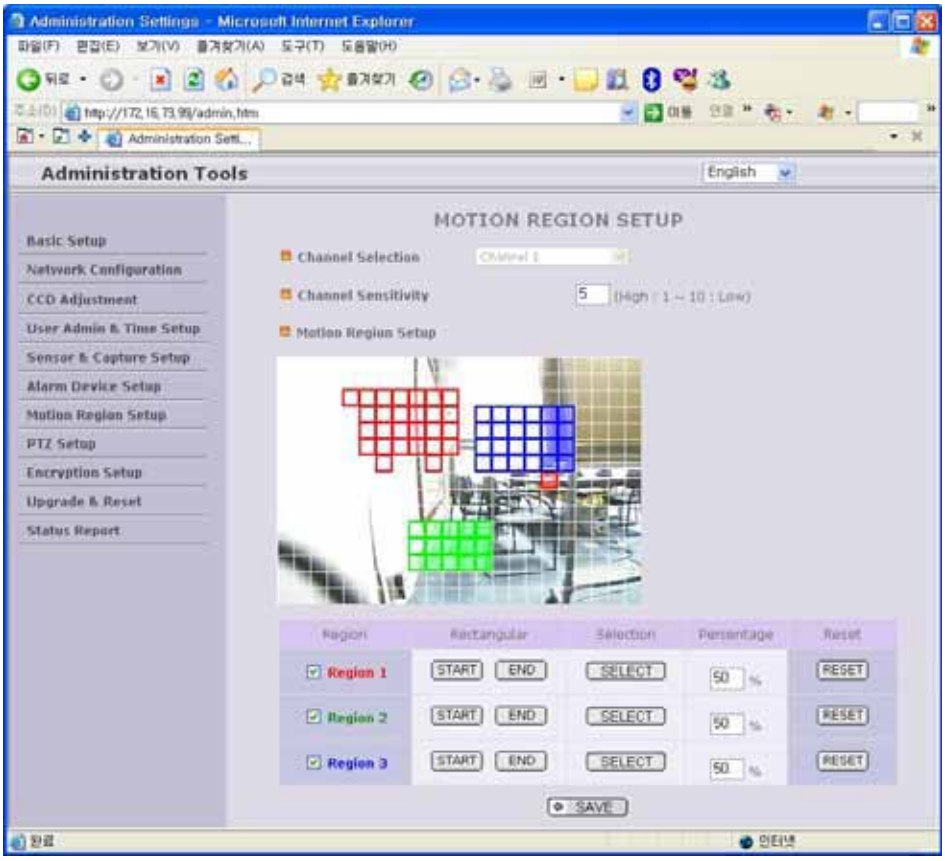


Figure 5-11. Motion Region Setup

Field/Button	Sub Field /Button	Description
Channel Selection		Not applicable.
Channel Sensitivity		Set the sensitivity in motion detection for each channel. 1 is the most sensitive, and 10 is the least sensitive.
Motion Region Setup		Set up to 3 the motion detection zone
	Region 1, 2,	Enable each zone by checking the box at the left of each Region.

	or 3	**. To set the region,** 1. Click on **START** and click on a box overlaid on the video 2. Click on **END** and click on a box overlaid on the video. 3. The defined motion detection zone will be indicated with corresponding colors. **Legend of the color :** red(region 1), green(region 2), blue(region3).
	START	Enable selection of rectangular zone start.
	END	Enable selection of rectangular zone end.
	SELECT	Click on this button and click on desired rectangle to add or delete the rectangular region to the motion detection zone.
	Percentage	This value controls the sensitivity of each region. 1 is the most sensitive and 100 is the least sensitive
	RESET	Clears the start & end point to (0,0) & (0,0)
SAVE		Save the setup parameters.

5.10. PTZ Setup(This is not related with iCanView220/220W Network Camera)

Setup and test the PTZ devices. Since PTZ feature is not implemented on iCanView220/220W, this feature will not function properly with iCanView220/220W.

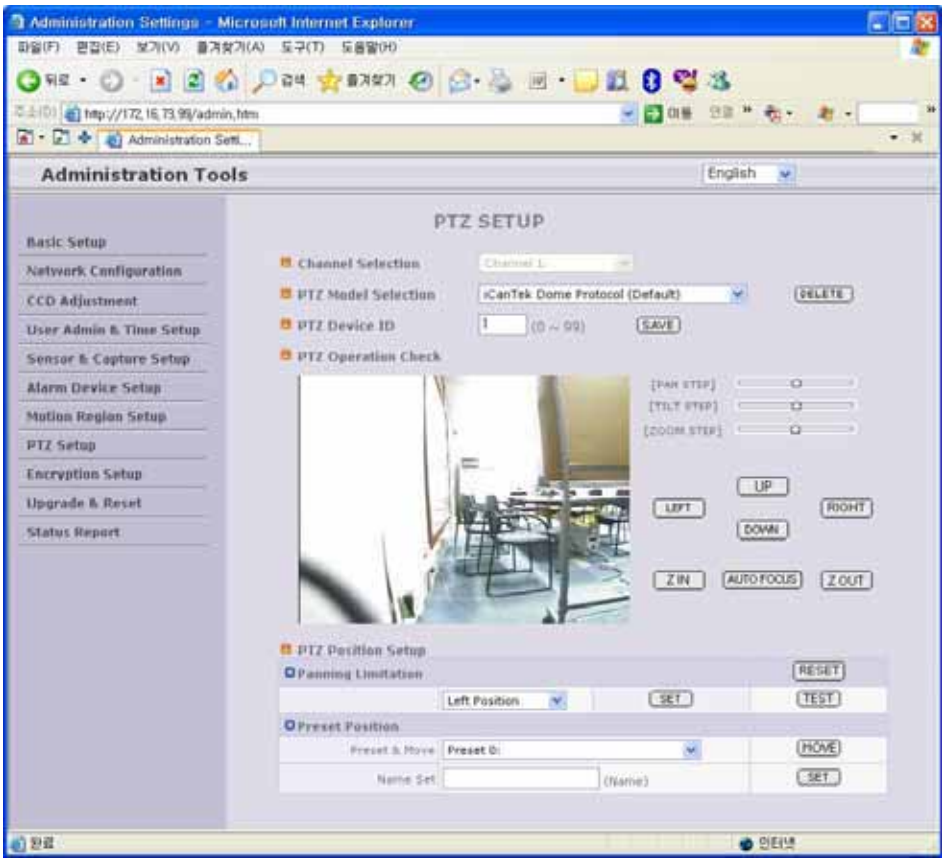


Figure 5-12. PTZ Setup

Field/Button	*Sub Field /Button*	*Description*
Channel Selection		*Not applicable*
PTZ Model Selection		*Choose the PTZ model.* *Refer to section 5.12 for the addition of PTZ protocol data.*
	Delete	*Press this button to delete the setup of PTZ*

	Button	
PTZ Device ID		Your PTZ device needs an ID, input ID in this field. Click on SAVE to save the ID.
PTZ Operation Check		You can check the various operation of the PTZ devices. "Left"/"Right"/"UP"/"DOWN" , "AUTO FOCUS"/"ZIN"/"ZOUT"
PTZ Position Setup		You can set up the PTZ limitation & preset positions if the PTZ device supports it.
	Panning Limitation	Set the left/right limitation and test. Select Left/Right position before setting.
	Panning Limitation RESET	Clear the panning limitation previously set. The panning range will be the same as the PTZ device allows.
	Panning Limitation SET	Set the present position as left or right panning limitation.
	Panning Limitation TEST	Test the panning limitation which was set previously.
	Preset Position :	Set the preset position and test.
	Preset Position Preset & Move	Select a preset position to move to. Movement to the preset position will be made upon clicking on "MOVE"
	Preset Position Name Set	Assign logical name for the preset position. Enter into the field and click on SET.
	Preset Position Set	Set the present position as a preset position with position number shown at the right of "Preset & Move" and name shown at the right of "Name Set".

5.11. Encryption Set up

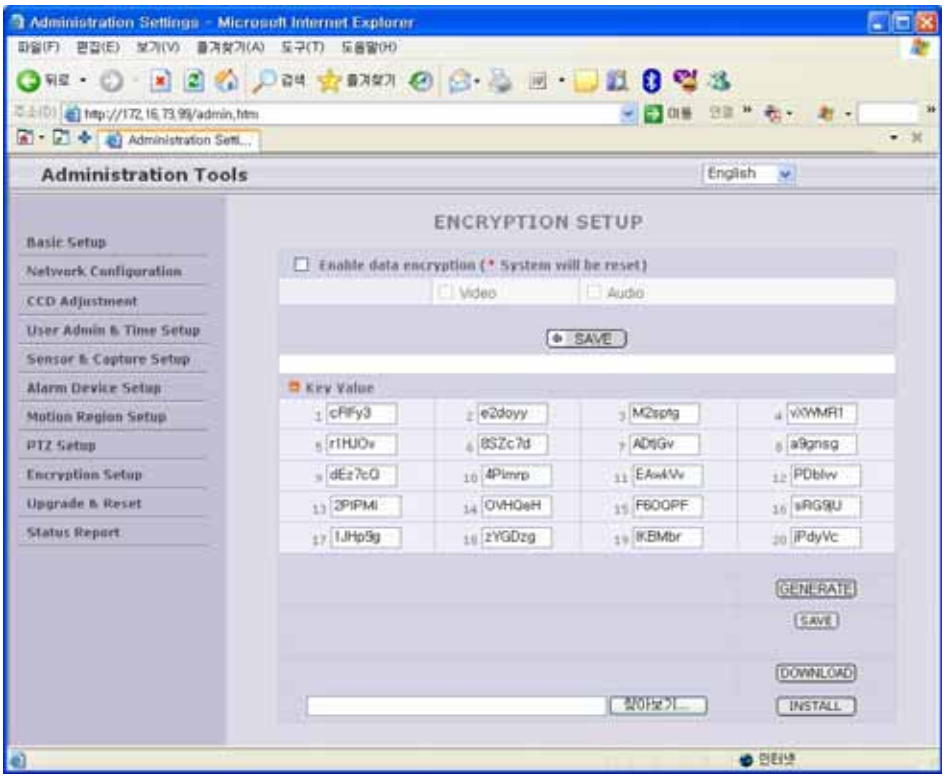


Figure 5-13. Encryption Setup

For additional security to the video and audio data transmitted from the network camera, you can set key codes and use them for encrypting the data from the network camera.

You can selectively activate encryption for the video and audio data. For enabling the encryption, check at the box at the left of the "Enable data encryption" then check at the proper check boxes at the left of "Video" and "Audio". After the selection, click on SAVE button beneath the "Video" and "Audio" check boxes.

Field/Button	Sub Field /Button	Description
Enable Data Encryption		Check at this box to apply data encryption. If it is unchecked encryption is applied on neither video nor

		audio data regardless of the selection below.
	Video	Check to enable encryption on the video data.
	Audio	Check to enable encryption on the audio data.
	SAVE	After the selection, click on SAVE button.
Key Value		You can use up to 20 different key codes for the encryption of the data
	GENERATE	To generate the key value click on "GENERATE" button. The boxes for the Key values will be filled with new values.
	SAVE	**Save Key value on the network camera**: Click on SAVE button beneath GENERATE button to save the key value generated by the network camera.
	DOWNLOAD	**Download Key value to your PC** : The key values can be downloaded and stored as a file to your PC for reference when you make connection. When encryption is enabled, the PC client program will ask for particular key value out of the 20 available key values.
	INSTALL	**Upload key value to the network camera** : The key value stored on your PC can be uploaded to your network camera. This feature is useful when you manage multiple network cameras having same key value sets. Select a file having key values then click on "INSTALL" button to upload the key values. Find file saving the Key value before uploading to the network camera.

5.12. Upgrade & Reset

You can upgrade the iCanView220/220W via the network.

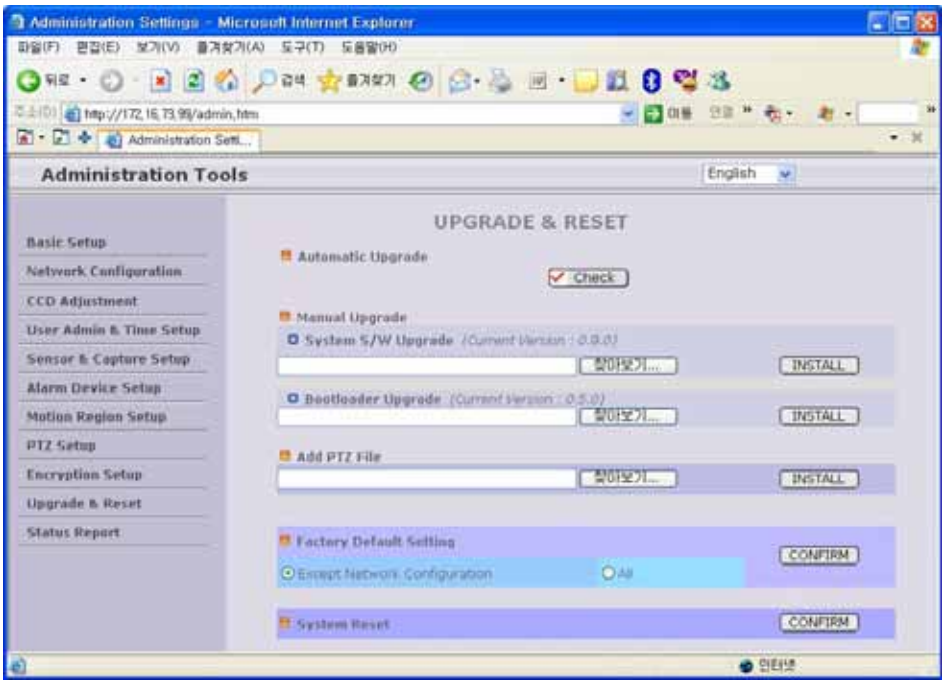


Figure 5-14. Upgrade & Reset

For each of the upgrade of the system component, upgrade code should be downloaded from **iCanTek**'s home page before the system upgrade is performed.

(Refer to **[6.4. How To Upgrade Your iCanView220/220W System]**

Field/Button	Sub Field /Button	Description
Automatic Upgrade		Automatic upgrade is a feature that enables network camera to upgrade to newly released system software by automatically connecting to upgrade server. Click on **check** button to find the availability of upgrade firmware.
Manual Upgrade		Upgrade the system manually.
	System S/W Upgrade	Upgrade the system software installed in the network camera via the network. System software needed for the upgrade can

		be downloaded from iCanTek's home page. Refer to **[6.4. How To Upgrade Your iCanView220/220W System].**
	Bootloader Upgrade	Upgrade the bootloader installed in the network camera via the network. Bootloader needed for the upgrade can be downloaded from iCanTek's home page. Refer to **[6.4. How To Upgrade Your iCanView220/220W System].**
Add PTZ File		Add a new PTZ driver software via the network. PTZ driver can be downloaded from iCanTek's home page. Refer to **[6.4. How To Upgrade Your iCanView220/220W System].**
Factory Default Setting		Re-initialize the network camera to factory default state. By checking on a Radio button "Except Network Configuration", you can preserve the parameters for the network. Checking on "All", will return all the parameters to factory default state. **Once iCanView220/220W is re-initialized as factory default state, it should be set-up again using IP-Installer.**
System Reset		Perform remote reset by clicking the "CONFIRM" button. **All previous connections will be disconnected upon reset. iCanView220/220W does not resume the connections and the users must re-connect to the server manually.**

5.13. Status Report

It shows you system records since the system started.

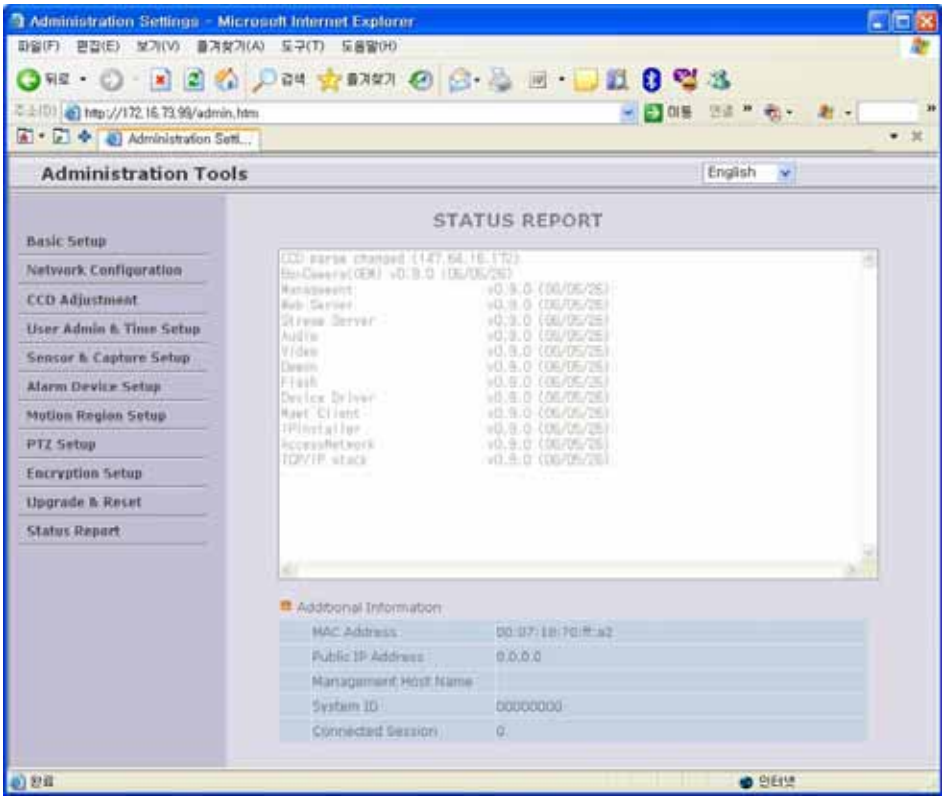


Figure 5-15. Status Report

You can check the problems as well as the versions and event status of the whole system and each module.

6. Tips for Using iCanView220/220W

6.1. Sensor-IN and Relay-OUT

Sensor-In and Relay-Out cable is used to connect various sensing and alerting devices. Examples of sensing devices are infrared sensors, motion sensors, heat/smoke sensors, magnetic sensor, etc. Relay-Out t is used for connecting alerting device such as loud speaker, flashing light, etc.

Cable color	Description	Misc.
red	Sensor In (-)	NC/NO selectable in admin mode.
black	Sensor In (+)	NC/NO selectable in admin mode.
orange	Relay out	Normal close
brown	Relay out	Common
yellow	Relay out	Normal open

Figure 6-1. ALARM-IN/ALARM-OUT Cable

1. Sensor-IN

Connect the two wires of the sensors. The sensor type can be set in Administrative Mode(Ref. 5.5 & 5.6). Output lines providing on-off switching are connected between "+" and "-" pins. Figure 6-2 shows the input circuit of "Alarm In".

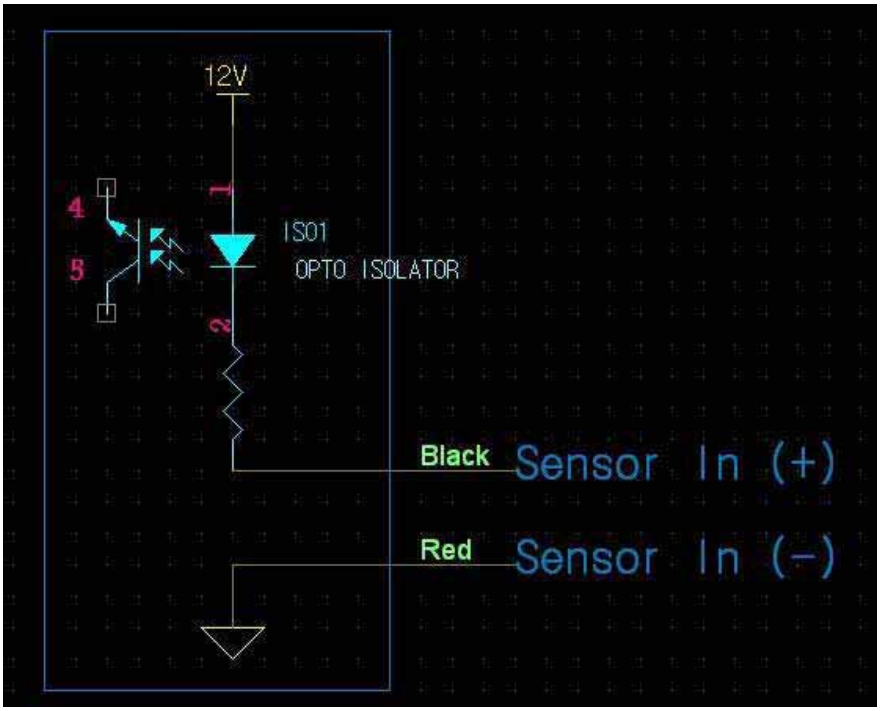


Figure 6-2. SENSOR input of iCanView220/220W

2. Relay-OUT

A Relay output is provided for connecting alarm devices or for remote on/off devices such as light control. Relay circuits are normal open and circuits are closed upon alarm output or remote on. The relay is capable of switching AC/DC 30V,1A electrical signal.

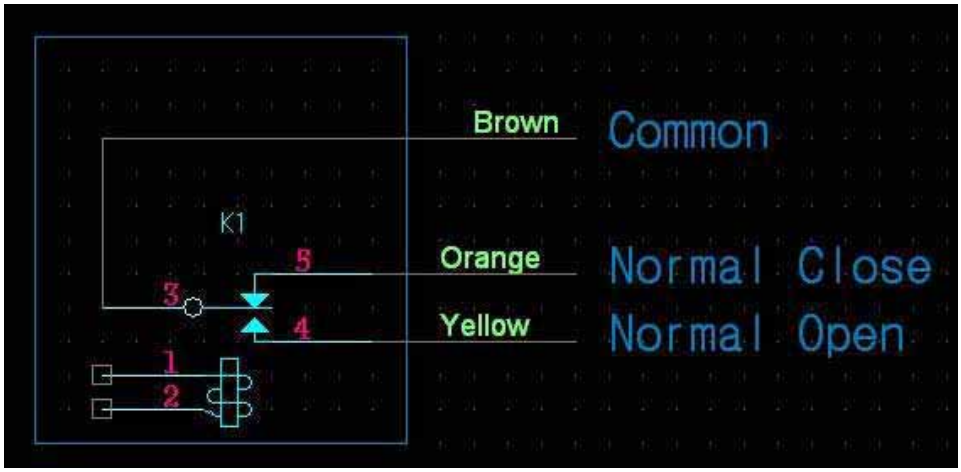
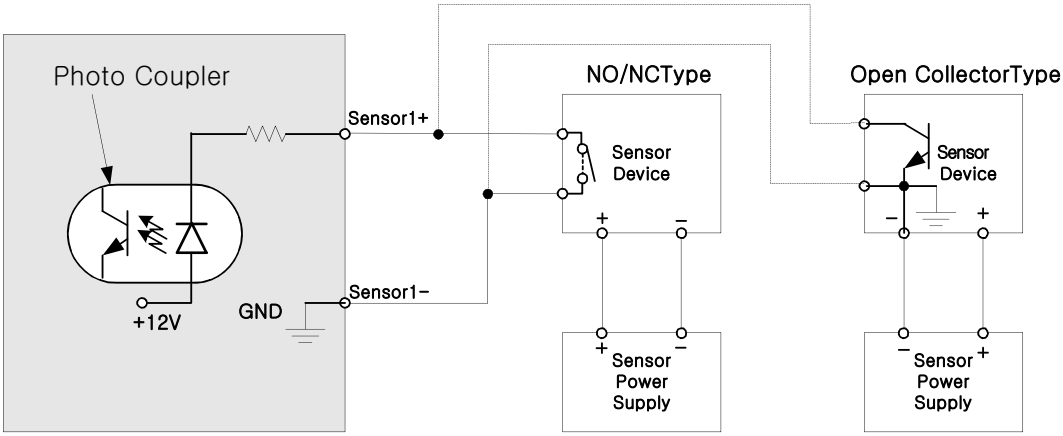


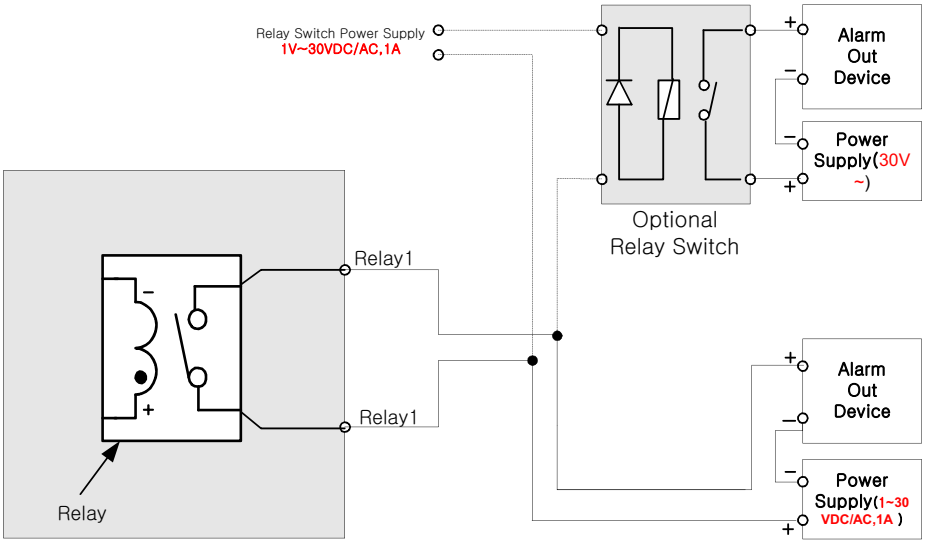
Figure 6-3. RELAY Output of iCanView220/220W

3. Connection of Sensor, Alarm Device

3.1 Connection of Sensor



3.2Connection of Relay



You can use the supported relay output to directly drive a maximum load of 30V AC/DC at 1A. By connecting additionally relay circuitry(such as optional relay switch), it can also drive heavier loads.

6.2. Trouble Shooting

1. After iCanView220/220W is successfully installed.

- **<u>iCanView220/220W in viewing mode, neither channel name nor video is display and eventually timeout message is shown up.</u>**

Check the power and network connection of iCanView220/220W.

To check if the network is properly operating, open the browser and try to connect to any server.

Example) http://www.yahoo.com

Or open the MS-DOS Prompt and type the following.

ping www.yahoo.com

Then press Enter. If you see the " Reply from …" message it means that the network is working properly. To check if the iCanView220/220W is connected, open the MS-DOS Prompt and type the following.

ping [the IP of the server]

Example) ping 192.168.1.112

If you see the "Reply from …" message, it means that the server is properly connected.

If you do not see a Reply message, check if the network cable and power cable are properly connected.

2. After Successfully Connecting to the iCanView220/220W

- **Video movement is slow.**

In Basic Setup of Admin Mode, lower the "Quality". High quality means more data. You can also set the "Max. Bandwidth" to higher value. But this value must be lower than the maximum upload speed of your network. For example, if the maximum uploading bandwidth of the network is 400Kbps, set the total "Max. upload rate" as 384Kbps. If you set it higher, the video image can be corrupted with artifacts.

Ask your network manager or ISP for maximum uploading bandwidth of the network.

- **The image is dull and I see green, pink dots.**

This could be caused by performance limitation of the PC. Do not run too many programs while running viewer program. The other reason could be missing data while transmission from iCanView220/220W.

- **Mosaic phenomenon.**

Mosaic phenomenon occurs when not enough network bandwidth is available considering the resolution and frame rate of the video.

Example is 704x480 video with low Max. Bandwidth.

Users are recommended to adjust resolution and frame rates to lower values for lower bandwidth network.

6.3. Web Viewer

iCanView220/220W is designed to be connected through internet explorer, too. For connection to iCanView220/220W using internet explorer type in IP address or host address in the address input field of the internet explorer.

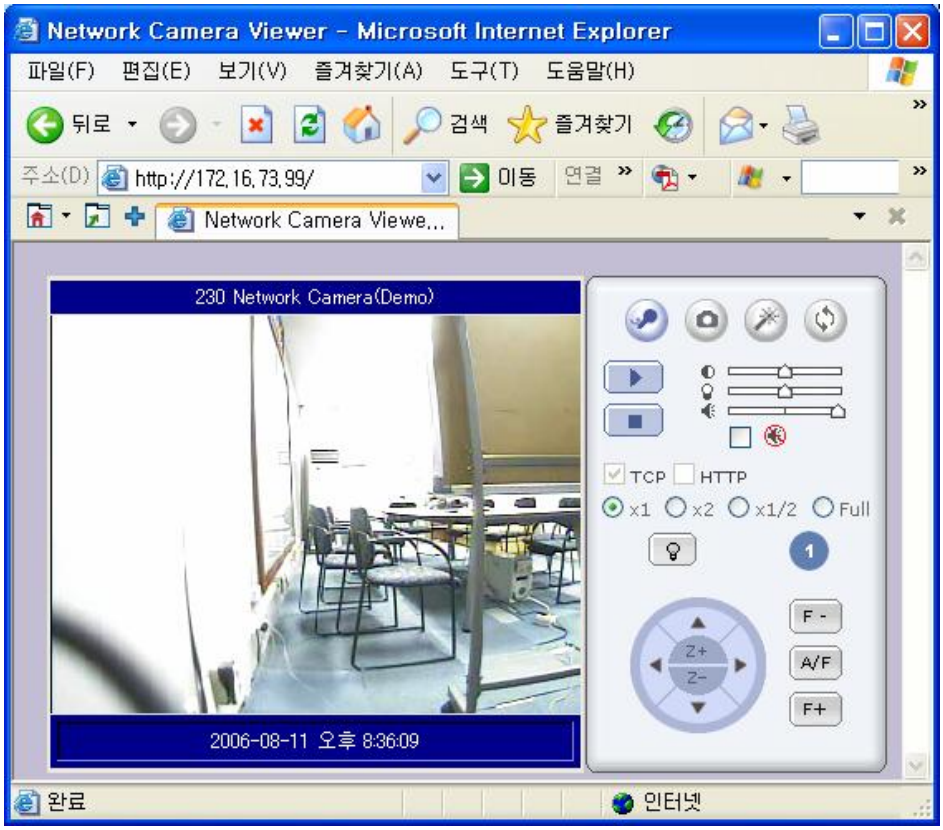


Figure 6-4. Web Viewer of iCanView220/220W

- **Control Panel of Web Viewer**

		Enable bidirectional audio. When bidirectional audio is enabled, voice from your PC is delivered to iCanView220/220W.

		Capture and store the still image on your desk top screen.
		Connect to iCanView220/220W in administrative mode.
		Rotate the screen by 180 degree.
		Connect to iCanView220/220W.
		Stop the connection.
		Contrast, Brightness, and Volume adjustment.
		Check the box to mute the audio.
x1 x2 x1/2 Full		Adjust the size of the screen. Normal (x1), Twice (x2), Half (1/2), Full Screen (full)
		On/off the relay by pressing the button
1	1 1	Shows the status of the sensor. Blue color means that the sensor is in normal state, while red color indicates alarm situation. Number on the button indicates the number of sensor.
Z+ Z- F - A/F F+	Z+ Z- F- A/F F+	**This functions are not related with iCanView220/220W**

6.4. How To Upgrade Your iCanView220/220W System

Unless otherwise instructed, the owners of the iCanView220/220W are recommended to upgrade the system when upgraded firmware is released using manual upgrade procedure.

Followings are the procedure to apply for the manual upgrade

1) Save the upgrade system software to your PC. Upgrade software can be downloaded from iCanTek's home page or provided in CD.
2) Log on to administrative mode and select "Update & Reset" menu.

서식 있음: 글머리 기호 및 번호 매기기

3) Click "Browse..." to find the files you want to use for upgrade. This will open a "Choose file" dialogue window. The file extension is "ief".

4) When you've found the file, click "Open." This will select the file and close the "Choose file" dialogue window.

5) Click the "INSTALL" button. An alert message box will pop up. Click "OK" button then it will start uploading the file. This may take some time.

6) Upgrade completion message will appear after the system upgrade has been completed.

7) Reboot iCanView220/220W by performing "System Reset".

서식 있음: 글머리 기호 및 번호 매기기

8) After rebooting, log on to the server in administrative mode again and click the "Status Report".

9) Check the version number and release date of the iCanView220/220W.

서식 있음: 글머리 기호 및 번호 매기기

You can download iCanView220/220W system software from iCantek's homepage.
http://www.icantek.com

Regulatory Information

FCC compliance Information

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

Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device, Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio Frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.