Owner's Guide

MyDVR1630/930

MPEG4 Based 16/9 Channel Triplex DVR with Audio

Feature

- Simultaneous Recording/Playback/Live monitoring over the network
- Recording Performance
  - NTSC : Total of 120 fps for 352x240, 30 fps for 704x480
  - PAL : Total of 100 fps for 352x288, 25 fps for 704x576
- Powerful PC client program for Live monitoring and Recording on the network client

iCANTEK
Internet Communication & Network Technology

Preliminary

The contents of this document can be changed without prior notice.

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CAUTION

- **THIS PRODUCT HAS MULTIPLE-RATED VOLTAGES (110V AND 220V). MAKE SURE TO SET THE VOLTAGE SELECTION SWITCH AT THE REAR PANEL TO PROPER VOLTAGE LEVEL OF YOUR REGION.**
- **THIS PRODUCT USES A LITHIUM BATTERY. RISK OF EXPLOSION IF THE BATTERY ON THE MAIN BOARD IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO INSTRUCTIONS.**
- **THIS EQUIPMENT AND ALL COMMUNICATION WIRINGS ARE INTENDED FOR INDOOR USE.**
- **TO REDUCE THE RISK OF FIRE ELECTRIC SHOCK, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE.**

Rack Mount Instructions

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

1. Introduction

1.1. Overview

A triplex MPEG-4 16-channel DVR, MyDVR1630/930 *(myDVR930 Nine-channel model)*, features iCanTek's powerful embedded RTOS (real time operating system). While improving overall video quality, the MPEG-4 video codec (video coder/decoder), affords state of the art performance. MPEG-4 delivers uncompromised performance providing high compression plus high quality video images. Thus MyDVR1630/930 affords more days of recording between overwrite periods, while improving the quality of video images. Full triplex capability ensures uninterrupted recording.

MyDVR1630/930 supports simultaneous:

1. Video Recording
2. Live Video Monitoring
   - Locally via the front panel controls and monitor output
   - Remotely via myNVR ™ Network Client
3. File archiving via USB 2.0 port

Or

1. Video Recording
2. Remote Playback via network client application, myNVR™.

myNVR also supports powerful remote control features, including synchronized full duplex (bidirectional) audio communication.

1.2. Summary of the Specification of MyDVR1630/930

ITEM			Description
Video	Input	Number of Channels,	16CH (9CH),
		Input Level	Composite 1.0Vp-p, 75 Ohm
		Signal Format	NTSC/PAL
		Video Loss Check	Yes
	Output	Output	1 CH BNC(Composite), 1 CH S-VIDEO, 1CH VGA
		Output Level	Composite 1.0Vp-p +_0.2, 75 Ohm
		Signal Format	NTSC/PAL & VGA
		Loop-back	16CH (9CH) Loop-back

		Spot Monitor	1CH SPOT
Audio	Input		4 CH Line input
	Output		1 CH Line output
	Audio codec		G.711
Alarm	Sensor Inputs		16 (9) (NC/NO Selectable)
	Output/PGM		8
	Alarm Output Control		By Alarm, Motion, HDD Error, Temperature, FAN & POWER Failure, Video Loss, And ABCD (A Blind Camera Detection)
Recording	Codec		MPEG-4
	Multiple operation		TRIPLEX (Playback/Record/Network)
	Frame rate	NTSC	MAX. 120fps @ 352x240
			MAX. 30fps @ 704x480
			MAX. 60fps @ 704x240
		PAL	MAX. 100fps @ 352x288
			MAX. 25fps @ 704x576
			MAX. 50fps @ 704x288
	Recording quality setting		5 levels
	Recording control option		Continuous/Schedule/ Motion/Sensor/Manual
	Motion zone setting		Based upon 2 dimensional grid.
	Pre & Post Recording		Yes
Display Frame Rate			NTSC: 30fps/channel, 60 fields/sec PAL: 25fps/channel, 50 fields/sec
Search/ Playback,	Multi-Decoding		1, 4, 9, 16 & PIP
	Speed		X 1, 2, 4, 8
	Search Mode		Time, motion, continuous, sensor, manual
Storage & Archive	Internal HDD	Interface Type	EIDE/ATA133
		Max Capacity of 1 HDD	250GB
		Max number of HDDs	4

	Backup	USB 2.0 memory stick & CD-RW	Motion video and still images.
Serial port	Console & External Modem		1 RS-232C (9pin D-SUB connector)
	Camera control		1 RS-485/422 (4 Terminal Block)
Network	Dynamic IP support		Yes
	Network Interface		10/100 base-T Ethernet (RJ-45)
	DDNS Support		Yes
Network Client	Functions		Monitor Live Video, Remote Video Playback (with intelligent search), Network Record to PC, Pan Tilt Zoom Control.
Misc	Daylight saving		Yes
	Multilanguage		Yes
	S/W Upgrade		USB memory stick, Network
Power			100~127V/200~240V, 50-60Hz

1.3. Packing List

What is included:

myDVR1630 or myDVR930	
Support CD includes: Network Client, Utility Programs & Manual(s).	
Infrared Remote Control	
Batteries	
Screws for mounting HDD. *(Preinstalled when unit is shipped with HDD)*	

HDD connection cables (2 ea). *(Preinstalled when unit is shipped with HDD(s))*	
HDD Mounting Bracket (2 ea) *(Preinstalled when unit is shipped with HDD(s))*	
AC Power Cable	

2. Product Description

2-1. Front Panel

Figure 2.1. Front Panel

Table 2.1.1. Indication Lamps

Name	Description
HDD	LED illuminates when system accesses hard disk.
REC	LED illuminates when system records video.
ALARM	LED illuminates when alarm sensor(s) is/are triggered, or *detects video motion (*must configure video motion detector first).
NETWORK	LED illuminates when client connects via network port.
POWER	LED illuminates when power is ON.

Table 2.1.2. Buttons on the Front panel

Name	Description
POWER	Power ON/ OFF. (Prompts for password before shutdown) Configure settings for power down in the ***SECURITY Setup Menu***. The default password is “1111”.
DIS	Press to select full, quad, 9 or 16 split screen in live display mode.

SEQ	Press to start auto sequencing in full or quad display modes.
AUDIO	Press to select audio mode. Disable or Mute all 4 channels or selected channels only.
PTZ	Press to initiate PTZ control
SETUP	Press to launch SETUP menu.
ALARM	Press to silence alarm operation.
ARCHIVE	Press to review the ARCHIVE LIST in live display mode.
CAP/USB	Press to take a snapshot, or capture still images (jpeg format), during live or playback modes.
REW/LOG	(During Playback) Press to rewind video footage at 1x, 2x, 4x,and 8x, speeds, or to see the LOG LIST in live display mode.
F/REW	Jump/Step backward. In playback mode, the playback position reverses/jumps backwards 60 seconds.
F/ADV	Jump/Step forward. In playback mode, the playback position moves 60 forward seconds.
FF	(From Playback Mode) Pressing fast forwards footage at 1x, 2x, 4x,and 8x, speeds.
PLAY/PAUSE	From Live Display Mode: Press to enter SEARCH menu or From Playback Mode: Press to play, or pause video.
REC	Press to start or stop manual recording.
UP	Press to scroll up the menu items in setup mode. (Also used as the number 1 when entering password.)
RIGHT	Press to scroll right in the menu or to change values in setup mode. (Also used as the number 2 when entering password.)
DOWN	Press to move down the menu items in setup mode. (Also used as the number 3 when entering password.)
LEFT	Press to move left in the menu or to change values in setup mode. (Also used as the number 4 when entering password.)
SEL	(Surrounded by direction control keys) Pressing selects desired menu item, or saves the setup values in the setup menus.
ESC	Press for temporal storage of the changed value or to return to the previous menu screen.
USB Port	The USB Port is located on front panel's bottom right corner. Used for archiving video, or still images to USB storage devices.

2-2. Rear Panel

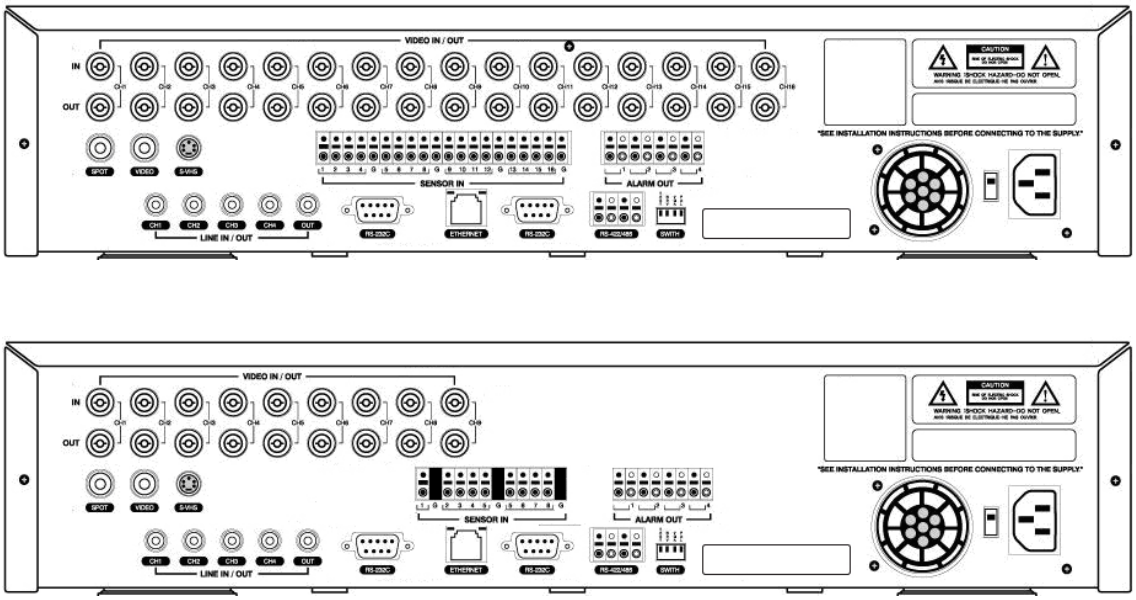

Figure 2.2. Rear Panel

Table 2.2.1. Connectors and switches at rear panel

Name	Function
VIDEO IN	16 BNC connectors for video input. Connect camera output to Video-in (NTSC/PAL)
VIDEO OUT	16 BNC connectors for video output.(loop back)
SPOT	Composite video output for spot monitoring.
VIDEO	Composite video output in NTSC or PAL format
S-VHS	S-VHS output
VGA	Connector for VGA monitor
AUDIO IN	4 RCA style connectors for audio input.
AUDIO OUT	1 RCA style connector for audio output.
RS-232	For engineering use only.
LAN	RJ45 connector for Ethernet connection.
RS-485/422	For camera Pan/Tilt/Zoom control.
SENSOR IN	Connector for alarm sensor/contact.
ALARM OUT	8 (PGM) connectors for device control. Provides simple On/Off switching using *relays. (*not included). 0.5A/125V, 1A/30V

POWER	Connector for AC115-230V power cable.	
SWITCHES		
TEST	For future use	**MyDVR1630/930 must reboot after changing switch positions!**
RSV	Reserved	
VGA	Set to ON when VGA monitor is used.	
PAL	Set to ON when video is PAL	

2-3. Remote Controller

POWER	Power On/Off
DISPLAY	Displays Full, Quad or 9-ch. split view
F/REW	Jump 60 seconds backwards
PLAY	Play/Pause
F/ADV	Jump 60 seconds forwards
FREEZE/CAP	Freeze/Capturers
FF	Fast Forward
ALARM	Silence/Ignore alarm operation
SETUP	Setup menu screens
ARCHIVE	Displays archive list
AUDIO	Disable/Mute or Highlighted channel only
LOCK	Locks keys for all functions
SEQ	Sequence of Full or Quad view
RECORD	Manual recording
SEARCH	Search menu screen
DIRECTION SELECT	Direction or number 1 to 4 Enter
ID	DVR ID (ID Button + DVR ID number)
ESC	Esc
PTZ	PTZ menu screen
NUMBER	Channel 1 to 9
	CH 10->press +10 and number 0
	CH 11->press +10 and number 1
	CH 12->press +10 and number 2
	CH 13->press +10 and number 3
	CH 14->press +10 and number 4
	CH 15->press +10 and number 5
	CH 16->press +10 and number 6

2-3-1. Alphabet input with Remote controller

Numeric key pads of the remote controller can be used to enter alphabet, when alphabet input is needed in parameter setting. The scheme follows that of the key pad of telephone.

As an example, press key pad "**2**" continuously for changing the input value to "**2, A, B, C, a, b, c, 2**… ". This mode is useful for assigning channel name, DDNS or ADSL configuration information.

Following table describes assignment of the alphabets for each numeric key pad.

Table 2.3.1.1. Alphabet input with numeric key pads of the remote controller

Numeric Key	Input values
1	1
2	A, B, C, a, b, c, 2
3	D, E, F, d, e, f, 3
4	G, H, I, g, h, i, 4
5	J, K, L, j, k, l, 5
6	M, N, O, m, n, o, 6
7	P, Q, R, S, p, q, r, s, 7
8	T, U, V, t, u, v, 8
9	W, X, Y, Z, w, x, y, z, 9

3. Getting Started – Setting Up the DVR

The following sections detail the initial setup of the DVR

3-1. Setup – Main Screen

Pressing the **Setup** button prompts the user for password entry. The default password is 1111. Input the default password by pressing the **Up button** 4 times, followed by the **SELECT** button. ***(In order to prevent tampering, change the password! Refer to section 3.6 for instructions.)*** After assigning a new password, enter it by using the direction arrow keys (representing 1, 2, 3, & 4), and then press the SEL button for entering into the Setup menu shown in Figure 3.1.1. Navigate through the menu icons using the **Up and Down** buttons and press the **SELECT** button to enter into sub-category menus.

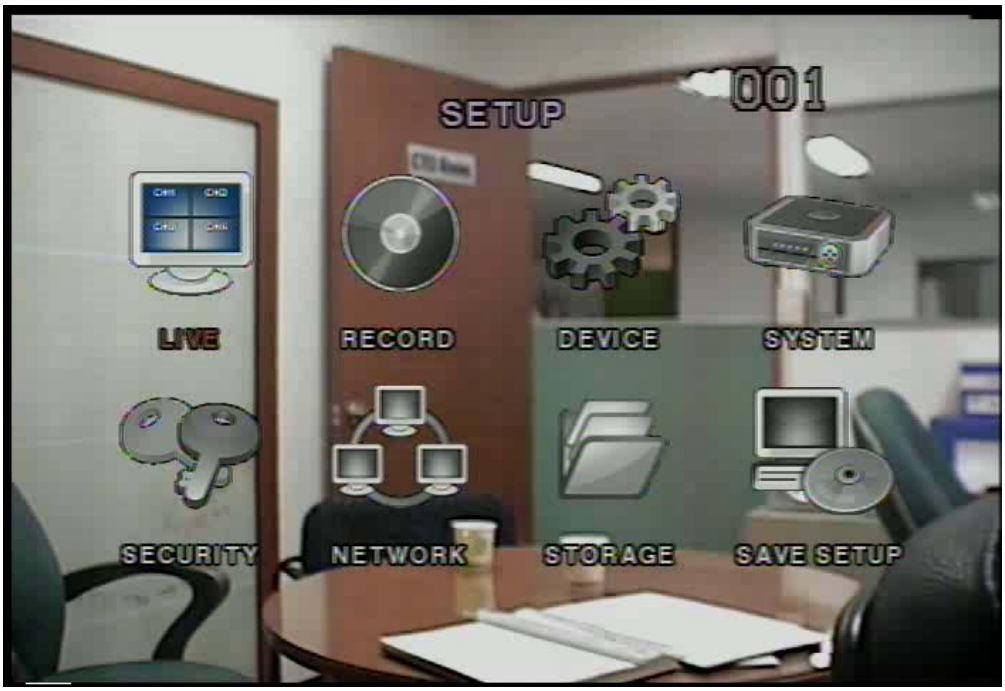

Figure 3.1.1. Setup menu screen

3-2. Setup – Live

- Used for setting up the live display mode.

Navigate through menu items using the **Up/Down** buttons. Change the values using the **Left/Right** buttons

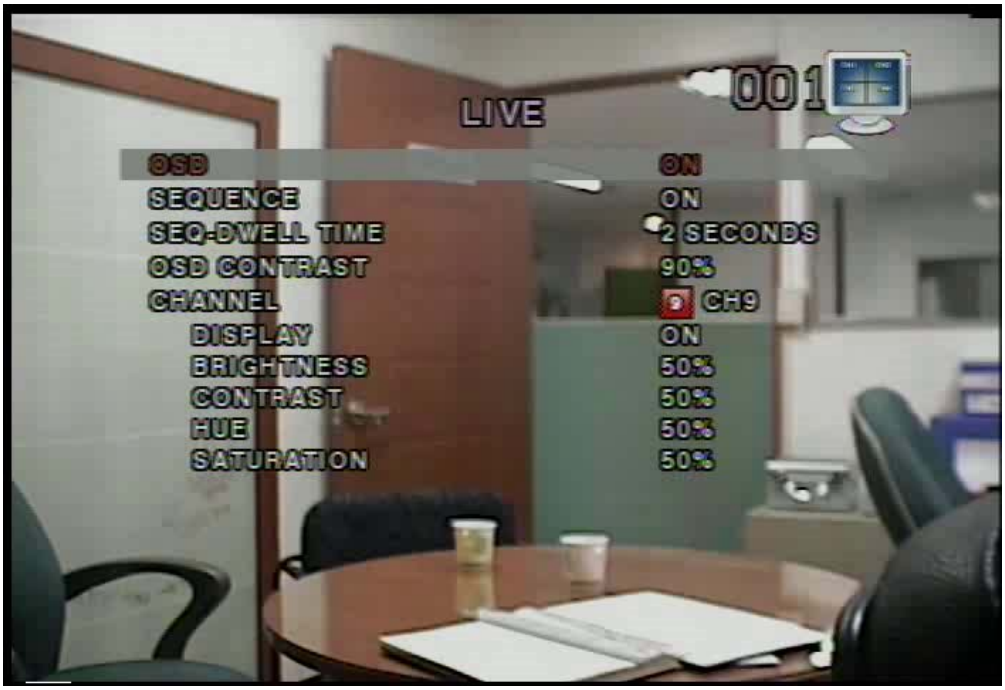

Figure 3.2.1. Live mode setup screen

Table 3.2.1. Menu items in LIVE mode setup

Item	Description
OSD	Enables/disables on-screen-display.
SEQUENCE	Enables/disables sequential video channels display in full screen mode.
SEQ-DWELL TIME	Sets dwell time for each channel in sequential display mode.
OSD CONTRAST	Sets the contrast level of On Screen Display (OSD)
CHANNEL	Selects channels to apply settings
DISPLAY	Enables/disables video channel description in live display mode

BRIGHTNESS	Brightness value for the specified channel
CONTRAST	Contrast value for the specified channel
HUE	Hue value for the specified channel
SATURATION	Saturation value for the specified channel

3-3. Setup – Recording Mode

- Controls video recording attributes

Navigate through the menu items using **Up/Down** buttons. Change values using **Left/Right** buttons.

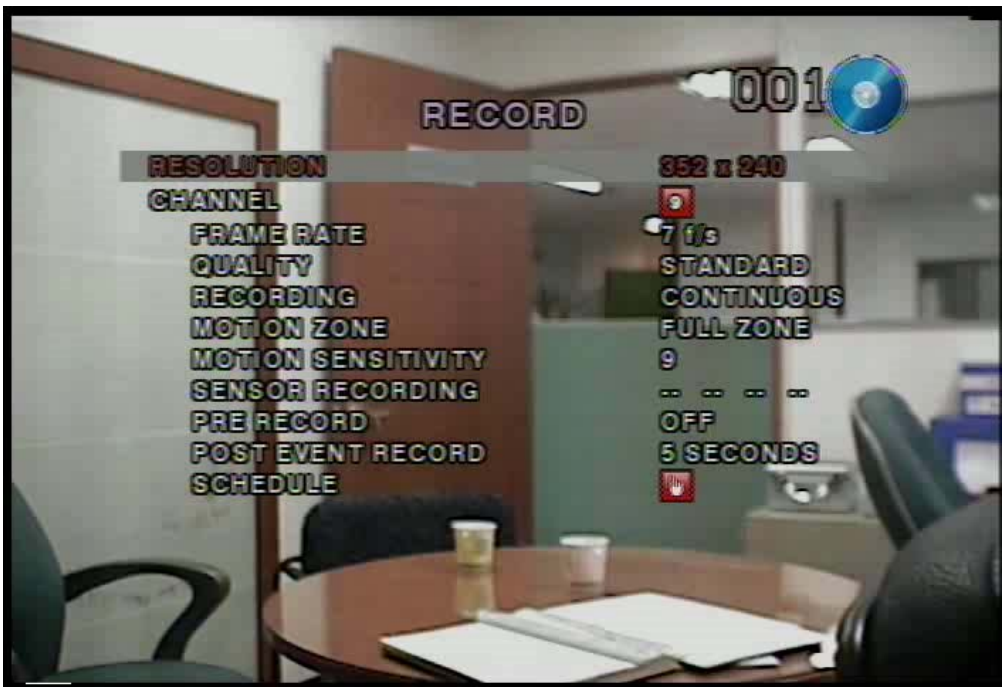

Figure 3.3.1. Recording mode setup screen

Table 3.3.1. Menu items in Recording mode setup

Menu item	Description
RESOLUTION	Configures resolution for 704x480, 704x240, or 352x240(NTSC).
CHANNEL	Selects channel to apply settings.
FRAME RATE	Configures the frame rate by channel. Frame Rate and Recording Resolution are interdependent. The 16/9 channel frame rate sum may not exceed the maximum frame supported by the resolution The following table

<table>
<tr><td></td><td>shows the maximum frame rate for NTSC/PAL video.
<table>
<tr><td>Resolution</td><td>Max. Frame Rate</td></tr>
<tr><td>320x240</td><td>120/100 FPS</td></tr>
<tr><td>704x240</td><td>30 FPS</td></tr>
<tr><td>704x480</td><td>30 FPS</td></tr>
</table></td></tr>
<tr><td>QUALITY</td><td>Configure the recording quality for a specified channel. Netork, Standard, High, Super, Ultra.
Video quality is the best for “Ultra” (Network quality is designed for very low upload bandwidth conditions (i.e. weak WAN connections)</td></tr>
<tr><td>RECORDING</td><td>Assigns the recording method for a channel:
Disable, Continuous, Motion, Sensor or Schedule.</td></tr>
<tr><td>MOTION ZONE</td><td>Sets full zone or partial zone.</td></tr>
<tr><td>MOTION SENSITIVITY</td><td>Sets motion detection sensitivity for a specified channel. from 1 to 9. (9 is the most sensitive setting.)</td></tr>
<tr><td>SENSOR RECORDING</td><td>Configures Alarm/Sensor Inputs for triggered recording. In total there are 16 sensors (9 for myDVR930). A maximum of 4 sensor/alarm inputs may be assigned to an individual channel.</td></tr>
<tr><td>PRE RECORD</td><td>Enables/disables pre-alarm (pre-event) recording. Pre-alarm recording is 5 sec. Only intra-frames are recorded.</td></tr>
<tr><td>POST EVENT RECORD</td><td>Set the length of time for post event recording video (post alarm recording). Configure by channel from 1 to 30 seconds.</td></tr>
<tr><td>AUDIO</td><td>Enables/disables audio by channel. There are 4 channels of line level audio inputs and a single line audio output.</td></tr>
<tr><td>SCHEDULE</td><td>Configures record schedules. Launches new menu as shown in Figure 3.3.3.</td></tr>
</table>

3-3-1. Setting up Motion Zones

By selecting **Partial Zone**, users can define motion zones within a screen area, as shown in Figure 3.3.1. Move each rectangular zone around using the four direction key buttons. Press the **SELECT** button to save the defined rectangular region as part of the motion zone. Upon saving, the defined rectangular blocks will change color.

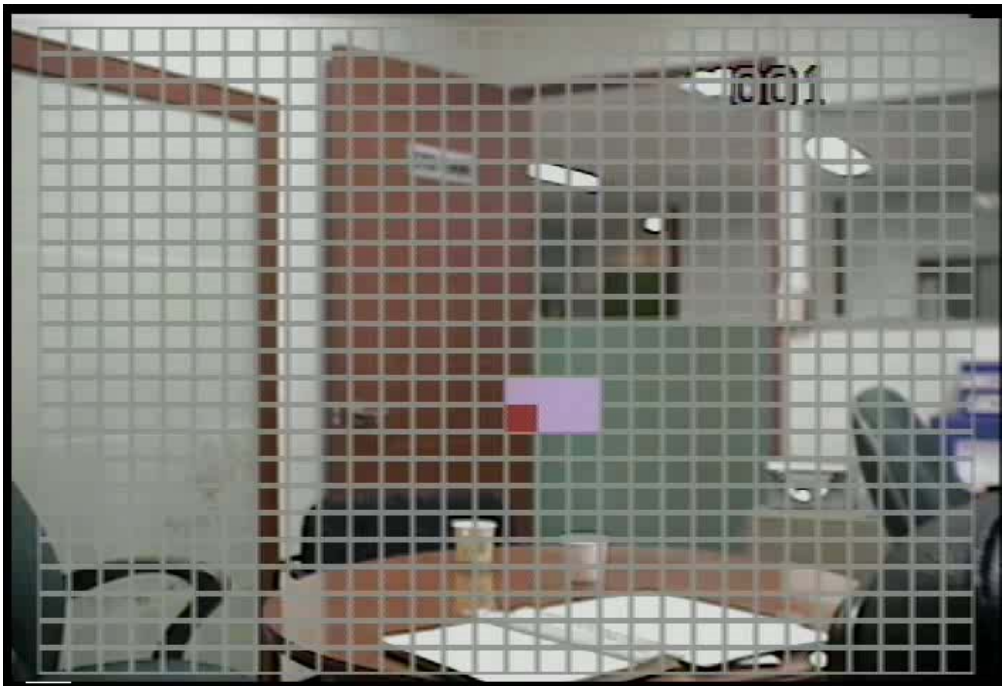

Figure 3.3.2. Motion Zone selection screen

3-3-2. Record Schedule

- Records video based on a defined schedule.

The following table (3.3.1) defines button functions within this menu. Use the four **Direction keys** and the **Select** key to navigate through the menu system. Each vertical bar **" | "** corresponds to one hour. See Figure 3.3.3 for a menu example.

Rules:

1. Choosing **ALL**, myDVR globally applies the schedule to all time zones and channels.
2. Within a selected channel, a recording mode applies to the entire time zone, for the specific channel.
3. Within a selected time zone, when highlighting one of the vertical bars**, " |,"** the selected recording mode applies to all channels.

Table 3.3.1. Button functions in Recording time scheduling mode

Button	Function
REW	Use to set Continuous recording mode.
F/REW	Use to Disable recording setting.
PLAY/PAUSE	Use to enable Motion detection triggered recording.
FF	Use to enable Sensor triggered recording
UP	Move up in menu item.
RIGHT	Move right in menu item.
DOWN	Move down in menu item.
LEFT	Move left in menu item.
SEL	Exit from scheduling mode.

Following picture shows copy setting values of 1CH to 2CH(it is useful to copy setting values of one channel to other channel)

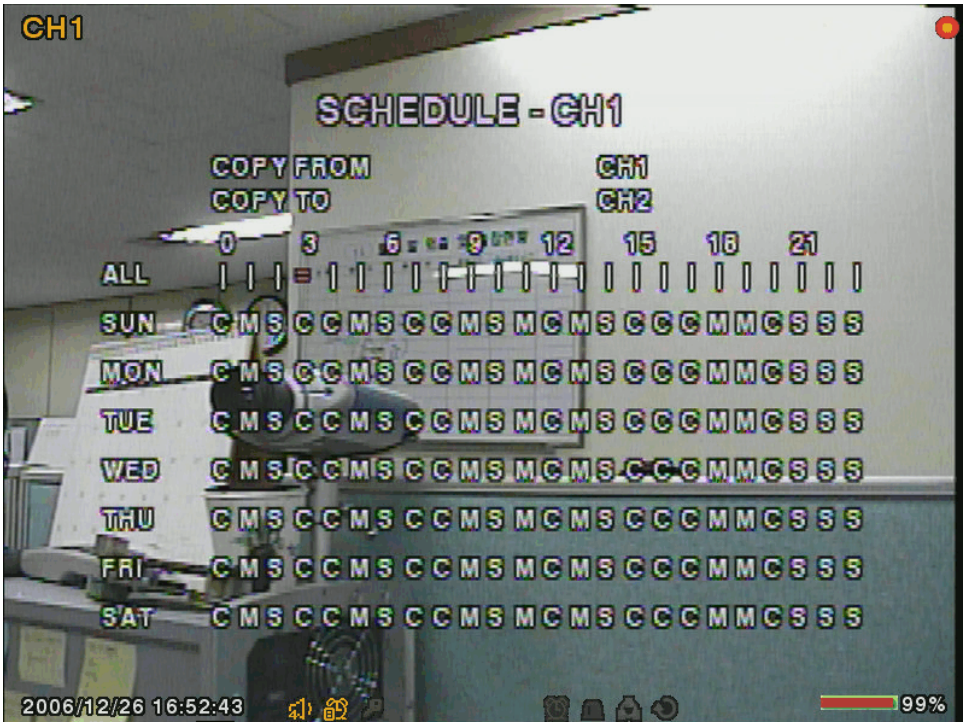

Figure 3.3.3. Recording Schedule Set-up Screen

3-4. Setup – Device Mode

- Configures values for device settings.

Navigate through each menu item by pressing the UP or DOWN arrow buttons. Change the value of an item by pressing the LEFT or RIGHT arrow buttons.

Figure 3.4.1. Device mode setup screen

Table 3.4.1. Menu items in Device Setup screen

Item	Description
ALARM-OUT	Set the sensor, motion, video loss, ABC and options for each alarm.
PTZ	Sets the camera's pan speed, number, type and ID
SPOT-OUT	Configures the spot monitor output type, channel etc...
KEY TONE	Enable/disable key tone audio feedback. Annunciates upon a positive key stroke on front panel.
REMOTE CONTROL I D	Choose ID for the remote controller. ID is a value between 0 to 99. This affords the opportunity to use multiple remotes with multiple MyDVRs.
SENSOR	Select a sensor from 1 to 16.
TYPE	Set the style of contact/alarm input for a specified sensor number. Choose None, N/O (normally open), and N/C (normally closed).

3-4-1. ALARM-OUT

Table 3.4.1.1 Menu item in ALARM-OUT Setup screen

Item	Description
ALARM OUT	Select alarm outputs from 1 to 8.
SENSOR IN	Enable for up to 4 sensors out a total of 16.
MOTION ON	Enable for up to 4 cameras out of a total of 16.
VIDEO LOSS ON	Enable for up to 4 cameras out of 16 cameras. (From multi Channel the video loss occurrence simultaneously, one initial Channel is notified with e-mail address of network set)
ALARM DURATION	Sets the alarm dwell time from 1 to 60 seconds.

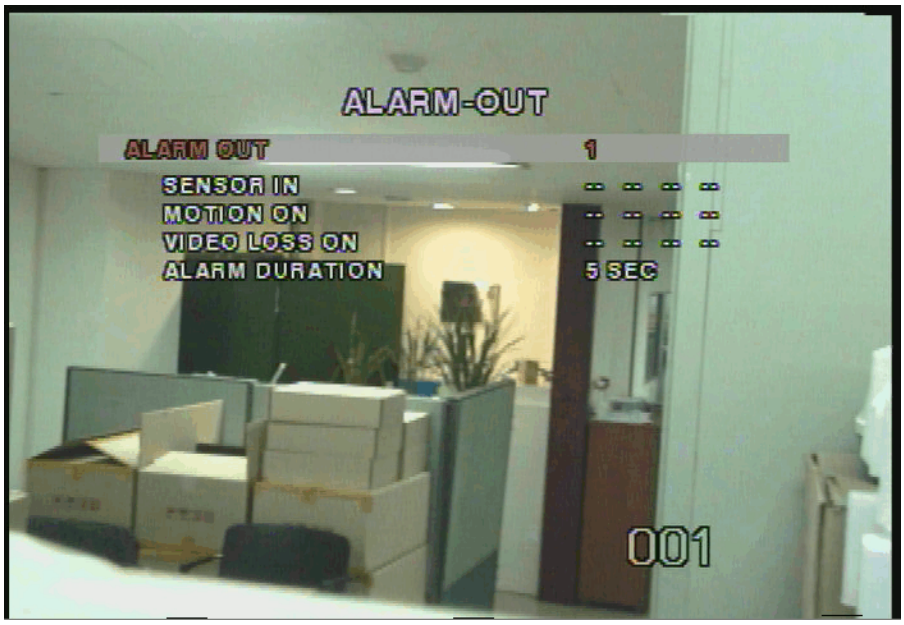

Figure 3.4.1.1. Alarm-out setup screen

3-4-2. PTZ Control

To control the PTZ functions of a camera, connect the controller to the RS-485 port.

For speed dome cameras that supports RS-485, connect them directly to the RS-485 port. For cameras using RS-232C, Signal Converter (RS-485 to RS-232C) is needed (not included).

From the PTZ Control setting setup menu, select/set the protocol for the camera

manufacturer you wish to control. If the camera uses a specific camera ID, select the camera ID by using the Left or Right buttons.

Table 3.4.2.1. Menu item in PTZ Setup screen

Item	Description
CH	Select the channel number for the PTZ device setup.
NAME	Navigate through the list of PTZ cameras by using the LEFT and RIGHT arrow buttons and make a selection.
SPEED	Configure the speed of the RS-485 communication port by using the LEFT and RIGHT buttons.
ID	Program the PTZ address.

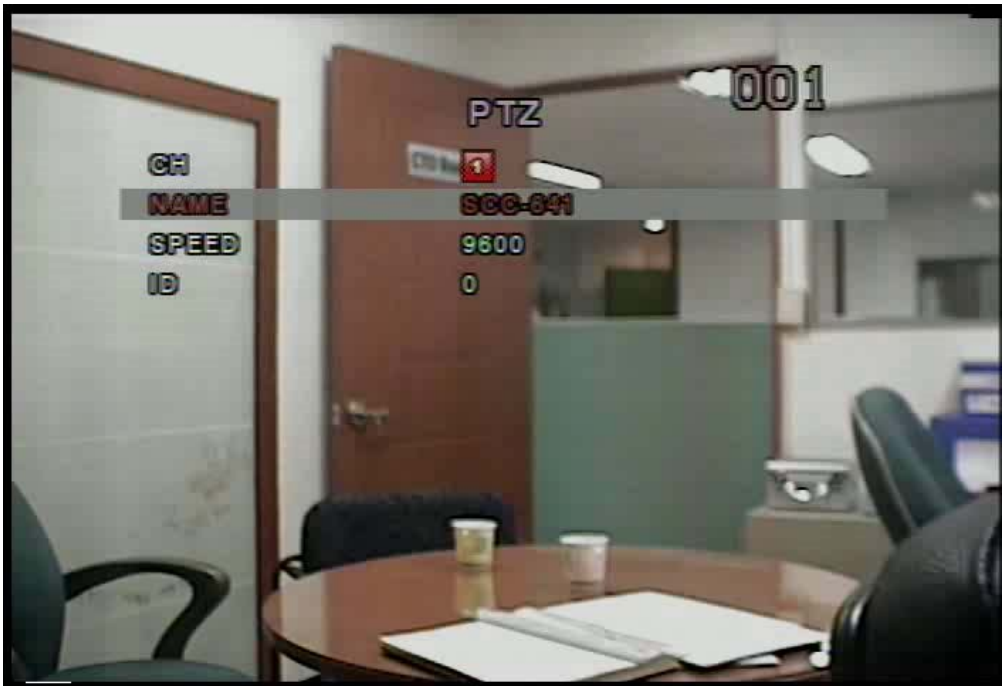

Figure 3.4.2.1. PTZ setup screen

3-4-3. SPOT-OUT

Table 3.4.3.1. Menu items in SPOT-OUT Setup screen

Item	Description
SPOT TYPE	Configure the display mode, either full or quad view for the spot monitor output.
SPOT ON EVENT	Enable/disable spot monitor upon events.
SPOT EVENT DWELL TIME	Set the dwell time for spot event monitor from 1 to 10 seconds.
SEQUENCE	Enable/disable SEQ button
SEQ-DWELL TIME	Set the channel sequence dwell time.
SPOT CHANNEL	Select a channel to display on the Spot Monitor.

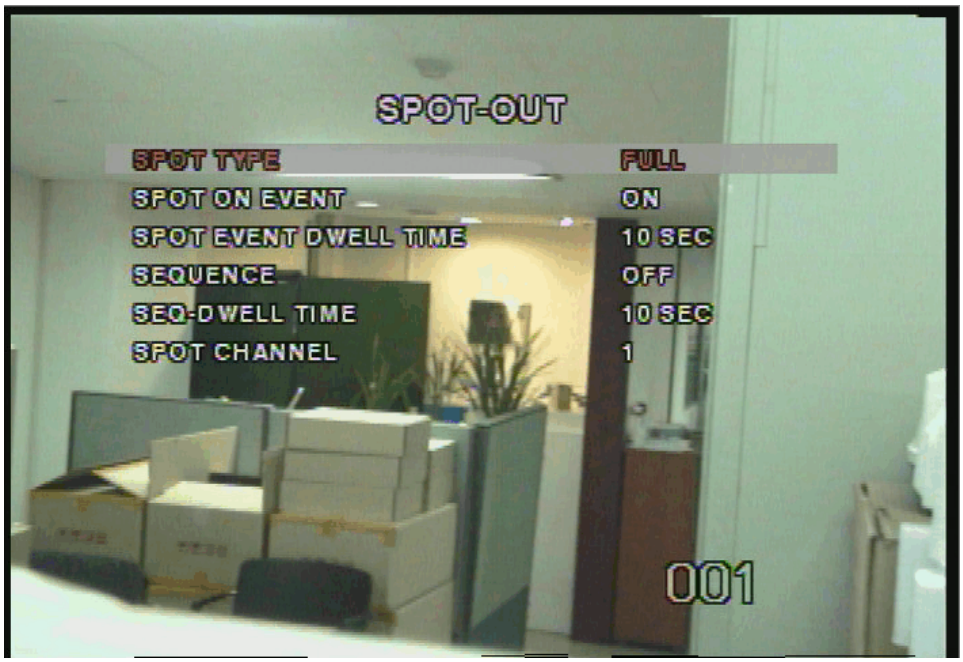

Figure 3.4.3.1 Spot-out setup screen

3-5. Setup – System Mode

- Configures system parameters

Navigate through the menu items by pressing the UP or DOWN arrow buttons. Change the value of menu items by pressing the LEFT or RIGHT arrow buttons and UP or DOWN buttons.

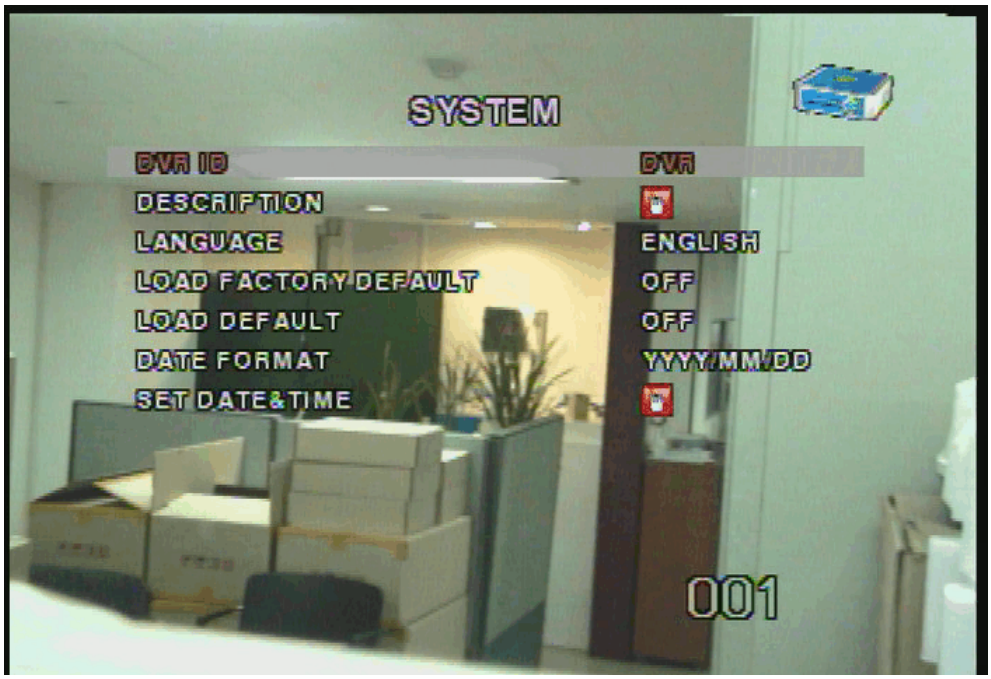

Figure 3.5.1. System setup screen

Table 3.5.1. Menu items in System Setup screen

Item	Description
DVR ID	Defines the system name. Navigate through the position for each alphanumeric character by using the left and right buttons. Up/down buttons change characters.
DESCRIPTION	Displays system information: Firmware Version, Storage Size, IP Address, and MAC Address.
LANGUAGE	Select a language for the OSD (on screen display)
LOAD FACTORY DEFAULT	Choose OFF or ON. To load default values, choose ON, then press the SEL button.
LOAD DEFAULT	Choose OFF or ON. ON loads the default values, ***with the followings exceptions:*** Password, Date format, DLS setting, Network parameters, HDD overwrite mode.
DATE FORMAT	Configure the preferred display style for the date and time

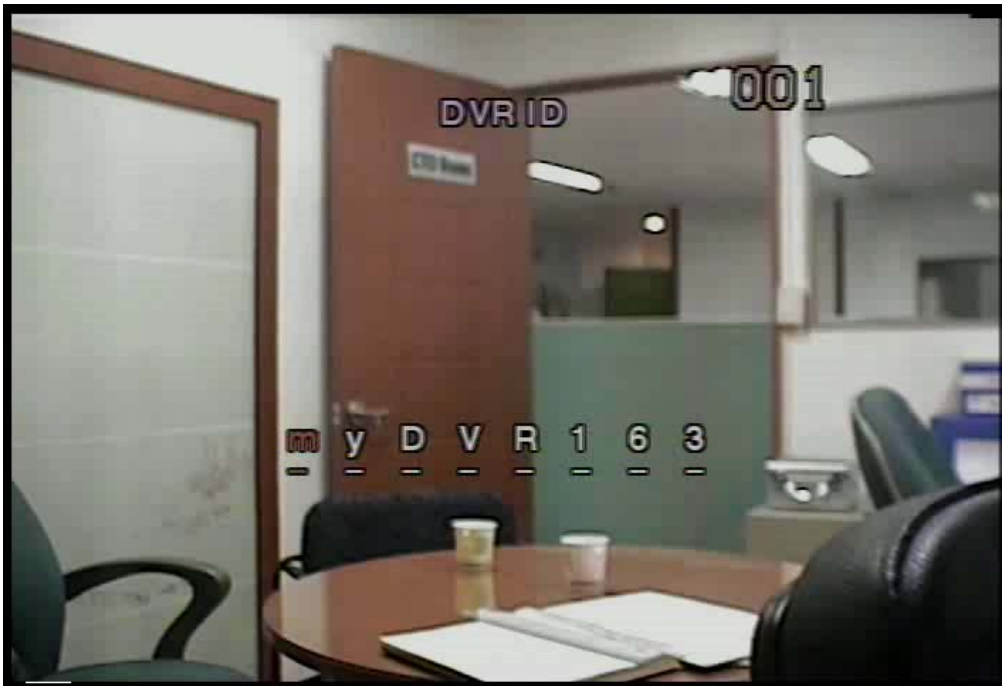

Figure 3.5.2. DVR ID setup screen

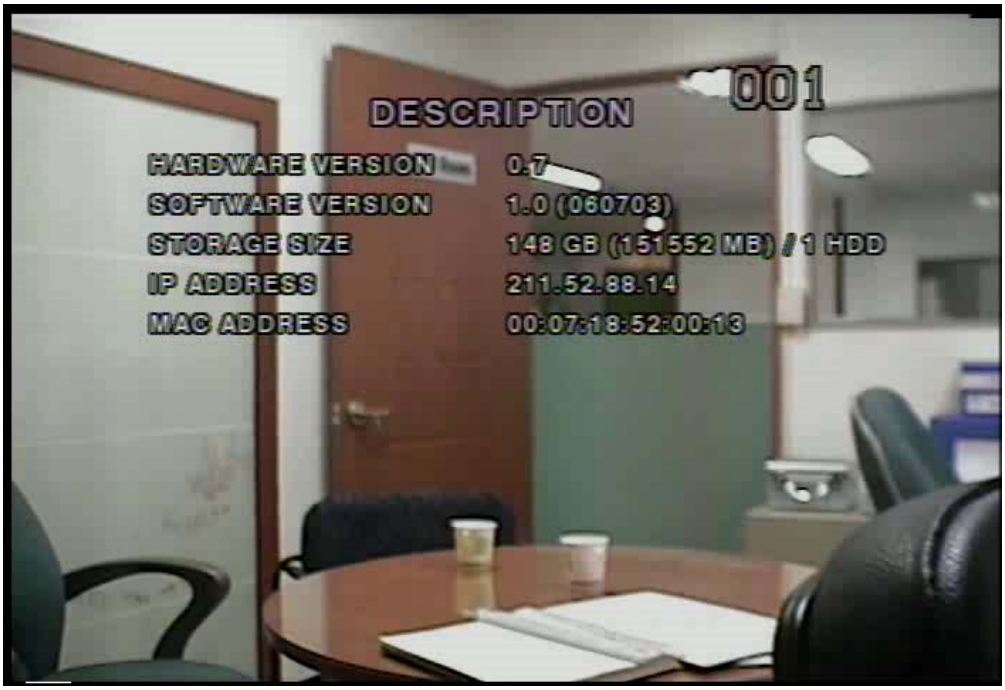

Figure 3.5.3. DVR information display screen

Figure 3.5.4.Set Date & Time setup screen

Table 3.5.4. Menu items in Date & Time setup

SET DATE&TIME	**Warning Changing this setting initiates a system reboot.** Set date and time. After changing, press the SEL button and select **CONFIRM**.
DAYLIGHT SAVINGS	Configures automatic adjustment for Daylight Savings time. Use the LEFT or RIGHT buttons to enable/disable. After selecting ON, move the cursor to the BEGIN (MM/DD HH) field. **Press the SELECT** button to set the DLS start time. Scroll to the END (MM/DD HH) field. Set the DLS stop time by using the UP or DOWN buttons. **CAUTION : PLEASE NOTE ILLEGAL SETTINGS:** -DLS can't start from 23:00 -The BEGIN DATE and END DATE CANNOT be the same.

3-6. Setup – Security Mode

- Assign new password and security parameters here.

Navigate through menu items by pressing the UP or DOWN arrow buttons. Change values by pressing the LEFT or RIGHT buttons.

Figure 3.6.1. Security setup screen

Table 3.6.1. Menu Items in Security Setup Screen

Item	Description
ADMIN PASSWORD	Sets the administrator password. Once selected, the DVR will prompt for the current password and new password. Follow the prompts. The password numbers 1, 2, 3 and 4 can be input by using direction keys. **UP, RIGHT, DOWN, and LEFT**, respectively. The default password is 1111. The Admin Password affords access to all DVR features.
USER PASSWORD	Sets the user password. Once selected, the DVR will prompt for the current password and new password. Follow the prompts. The password numbers 1, 2, 3 and 4 can be input by using direction keys. **UP, RIGHT, DOWN, and LEFT**, respectively. The default password is 1111. **User has access only for the search feature.**
NETWORK PASSWORD	Sets the network client connect password. The DVR prompts for the entire process of setting up a network password. Numbers 1, 2, 3 and 4 can be input by using direction keys. **UP, RIGHT, DOWN, and LEFT**, respectively. The default user ID and passwords are “root” and “1111”, respectively.

3-7. Setup – Network Mode

- Configures network parameters used for remote clients that connect to the DVR over a network or other network features.

If you do not understand the following settings, consult your network administrator.

Table 3.7.1. Menu Items in Network Set-up Setup Screen

Item	Description
PORT	RTSP port number
HTTP PORT	HTTP Port number
CLIENT ACCESS	Enables/Disables network client access
BANDWIDTH SAVING	Enables/Disables key frame transmission only. This feature is useful when network bandwidth is not enough for live streaming.
NETWORK TYPE	Type of network connected
DHCP	Enables/Disables DHCP connection (Dynamic IP addressing)
IP	Static IP address
GATEWAY	Gateway IP address
SUBNET MASK	Network Subnet mask
DNS	DNS server IP address. Valid DNS address is needed for E-mail transmission and use of DDNS.
DDNS	Domain name for the DDNS server. DDNS is used to resolve dynamic IP address by assigning host name to replace the IP address for the connection.
Send E-mail	Set this value to ON to initiates E-mail transmission of alarm video upon an alarm activation. Set to “ON”, and press SEL button to BEGIN e-mail configuration. On : email an alarm + IP address to set email email an alarm + event to set emails email notify IP address to set emails Cf : alarm = alarm event : capture JPG file and emails Notify IP = when IP address is changed, changed IP address emails(Mac address is also emailed)
IP Notification	For use with DHCP (Dynamic IP) servers. If the DHCP server assigns a new IP address to myDVR, the DVR sends an email to a specified recipient with the new IP address..

Event Alarm	Setting to “ON” sends an e-mail upon an alarm event.
Mail Address	Input the designated recipient’s address.
Mail Server Name	Enter the name of your SMTP server.
ID	Enter your SMTP server user ID.
Password	Enter your SMTP server password.
Return Address	**Warning**: Some incoming e-mail servers block e-mail reception from un-verified return e-mail addresses. Enter a valid e-mail address associated with the passwords above.

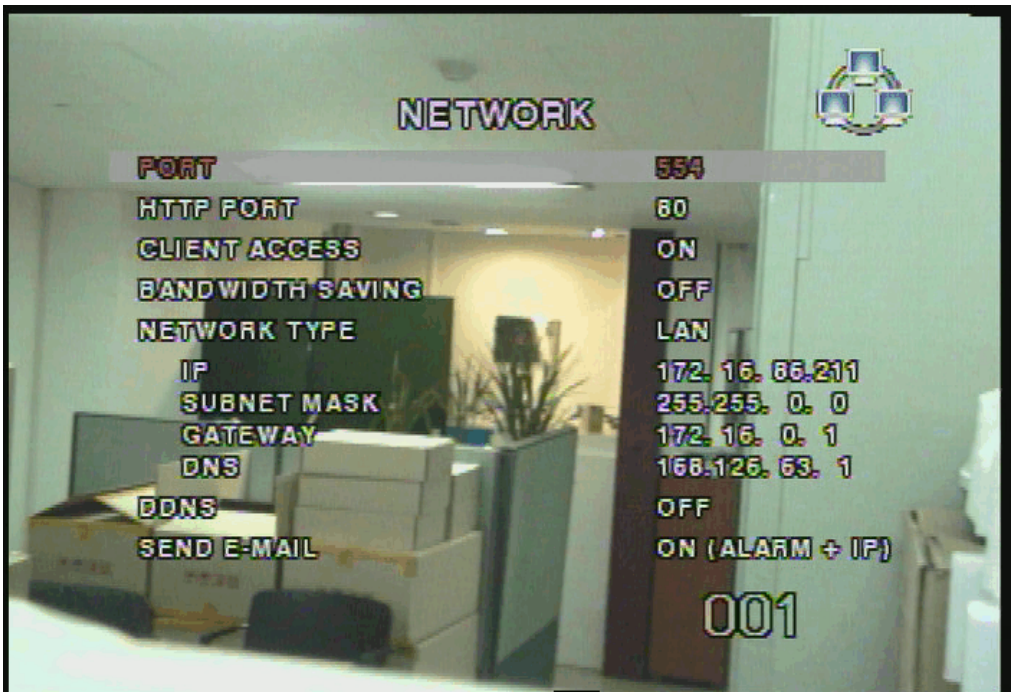

Figure 3.7.1. Network setup screen

3-7-1. Ports

Port Forward for access from a WAN

When one or more DVRs are connected through a IP sharing device (i.e. router) to a larger network (i.e. the internet), in order to access each unit from outside the local area network, each device must have a unique RTSP (Real Time Stream Protocol) and HTTP port number. You must also configure your IP sharing device for port forwarding, so that each port, when accessed on the IP sharing device, will forward to the appropriate DVR’s IP and or MAC address. The port number is listed next to the Port menu option in the Network menu. ***If you only plan to access multiple units from within a local area network, you do not need to change the RTSP and HTTP***

port numbers, unless other IP sharing devices sit in-between the client and the DVRs. To access the DVR, you must have the following information:

Table 3.7.1.1 Information needed for network access

When accessing from the same LAN	When accessing from outside the LAN
DVR's IP address	The Router, or Gateway IP address (IP address sharing device).
RTSP port number	RTSP port number
HTTP port number	HTTP port number
Username	Username
Password	Password

3-7-2. Network types

Configure one of three network types:
LAN, DHCP, and ADSL. Each type requires different settings.

LAN

To use the LAN option when connecting the DVR to a network, the following information is required. If you do not have this information, see your network administrator.

Table 3.7.2.1. Network Parameters for LAN

Item	Description
IP	The fixed IP address of the DVR
GATEWAY	The IP address of the gateway
SUBNET MASK	The subnet mask for the LAN

DHCP

Select DHCP *(for Dynamic IP Addressing)* to enable this feature. The DHCP server or a router automatically assigns the unit an IP address and other appropriate TCP/IP settings. After connecting to the network, view the assigned IP address by selecting **DESCRIPTION** from the **SYSTEM** menu.

If the network connection does not afford additional IP addresses, use an IP sharing device to remedy the problem. Port forwarding may be necessary in order to connect

to this device. Also, if a firewall is deployed on the IP sharing device, these ports must be opened to the outside network segment. For more information on port forwarding, see the documentation for your IP sharing device/router, or your network administrator.

ADSL

MyDVR supports direct PPPoE connections to ADSL modems without a router. The following information is required. If you do not have this information, see your network administrator.

Table 3.7.2.2. Network parameters for ADSL

Item	Description
ID	The user ID for ADSL connection
PASSWORD	The password for ADSL connection

The ADSL modem connection must have an RJ45 jack to connect to the DVR (USB Networking is not supported).

Sharing an ADSL connection with other devices requires an IP sharing device/router. In this case, select LAN as the NETWORK type. Port forwarding is required in order to access myDVR through a GATEWAY/Router and/or Firewall. See the documentation for your IP sharing device, or contact your network administrator to learn more about port forwarding. If your router has QoS (Quality of Service) and our gaming feature, you may want to enable this for the IP address for myDVR. Some ISPs block some ports commonly used for streaming video. If your ISP blocks the default port, simply change the port number to an unblocked port. See the iCanTek technical support web page for additional help trouble shooting blocked ports.

3-8. Setup - Storage Mode

-Configures the hard disk record mode, or initiates a hard disk format.

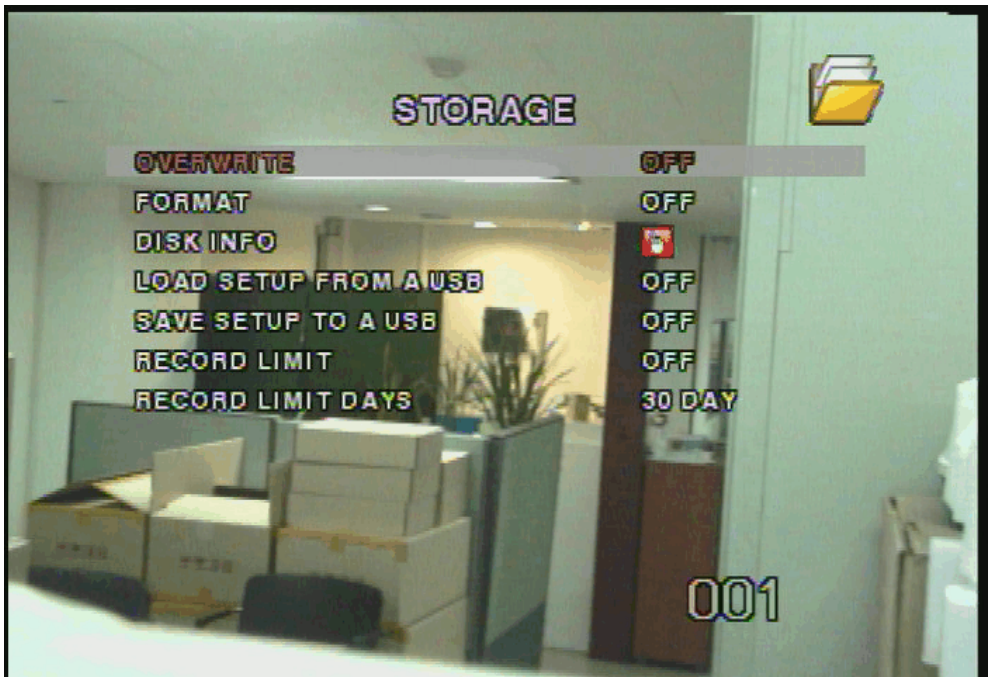

Figure 3.8.1. Storage setup screen

Table 3.8.1. Menus in Storage setup

Item	Description
OVERWRITE	Overwrites oldest existing video when the hard drive is full.
FORMAT	Formats the hard disk drive.
DISK INFO	Displays HDD/s disk information.
LOAD SETUP FROM A USB	Loads DVR set up parameters from the USB memory.
SAVE SETUP TO A USB	Stores DVR setup values to USB memory. This feature is useful when copying the set up parameters of one DVR to other DVRs, or for building templates.
RECORD LIMIT	On and Off record limit
RECORD LIMIT DAYS	Set up limit days

3-9. Saving Setup

To preserve changed setup values, select the SAVE SETUP menu and select CONFIRM. Unsaved setup values are lost if this step is skipped and the unit is powered down.

4. Local Viewing

4-1. Live Window

Video from connected cameras are displayed on the Live Setup configuration screen. Symbols indicate DVR status. Refer to Table 4.1.1 for a legend.

Figure 4.1.1. Live window

Table 4.1.1. Indicator ICONS in Live window

Icon	Description
	Continuous recording in progress
	Manual recording in progress
	Motion recording in progress
	Sensor recording in progress
	Alarm indicator. This icon changes to bright red upon alarm condition (sensor alarm or motion alarm) for the respective video channel.
	Indicates activated alarm output.
	Indicates network client connected to the DVR.
	Indicates sequencing mode enabled.

	Indicates Audio status, enabled/disabled.
	Indicates Locked DVR.

Table 4.1.2. Button functions in Live window

Button	Description
SETUP	Launches SETUP menu.
SEQ	Enables/disables automatic sequential switching in full or quad modes. Quad mode also follows these settings..
PLAY/PAUSE	Launches the SEARCH window.
Direction Buttons	Select a channel by using the direction keys. Selected channels show the channel ID in yellow.
SEL	When a channel is selected, press SEL button to explode the channel to full screen.
ESC	No action, backs out of last menu
REC	Starts manual recording for all channels.

4-2. SEARCH Window

Press PLAY/PAUSE button to launch the search menu. The screen shot shown in Figure 4.2.1 pops up. Select either “EVENT SEARCH” or “TIMELINE SEARCH” to initiate a search for recorded video. The other two menu fields are used to display the log data (LOG), or archived data for storage via the USB (ARCHIVE).

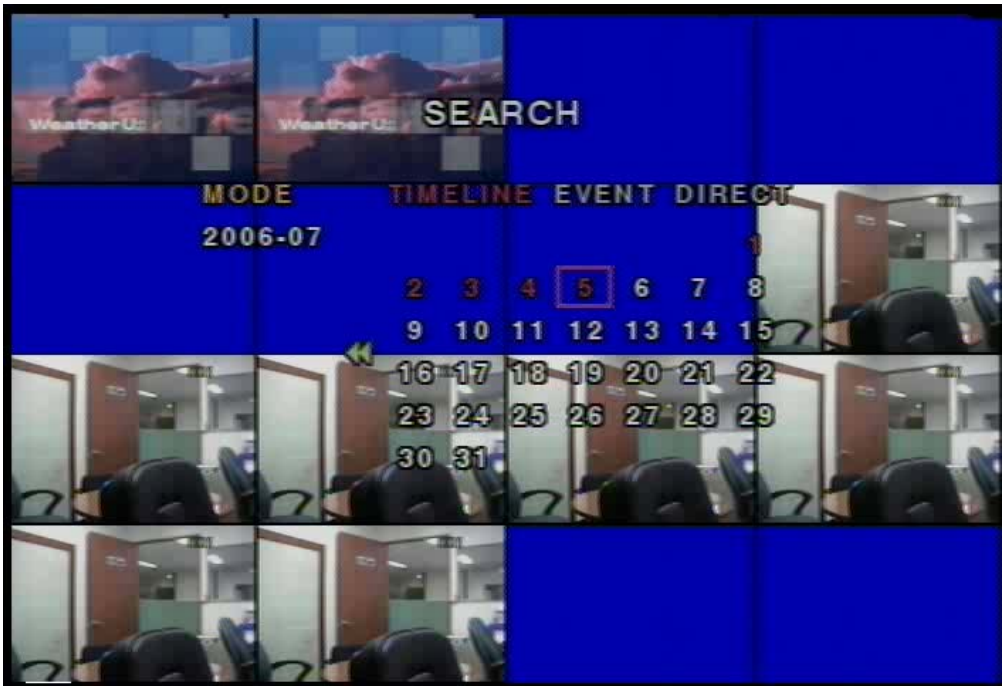

Figure 4.2.1. Search mode screen

1. Select TIMELINE which you want to search.
2. TIMELINE is showed like a Figure 4.2.2
3. Select time and select channel you want, recorded file is playback.

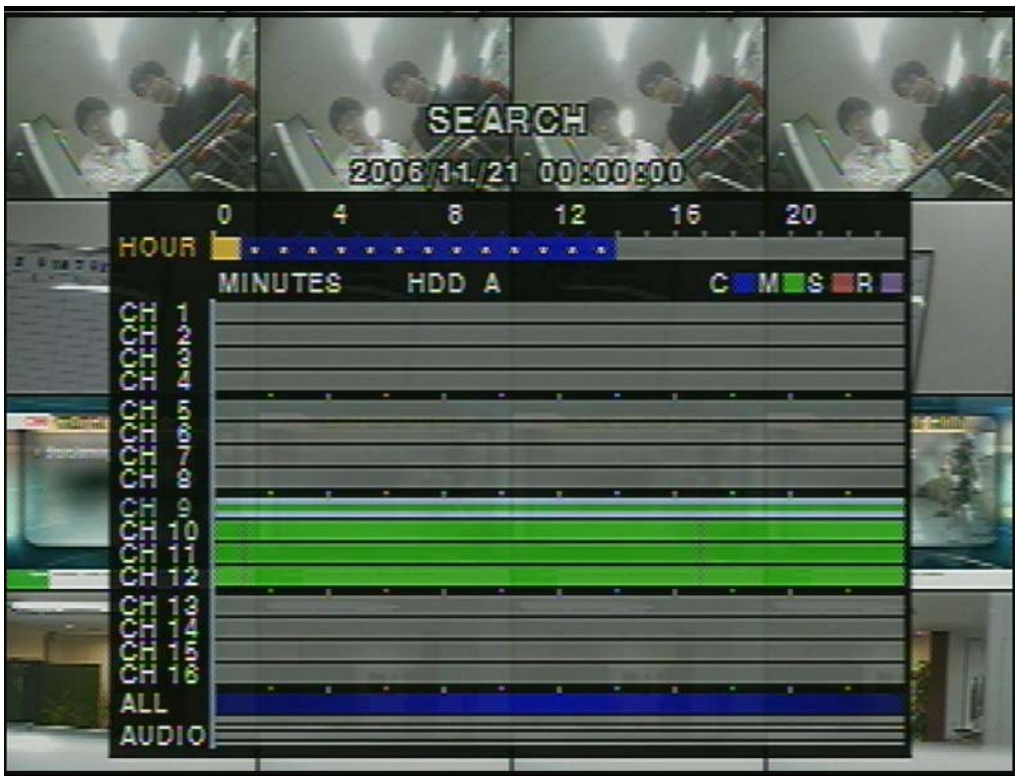

Figure 4.2.2. Search mode screen

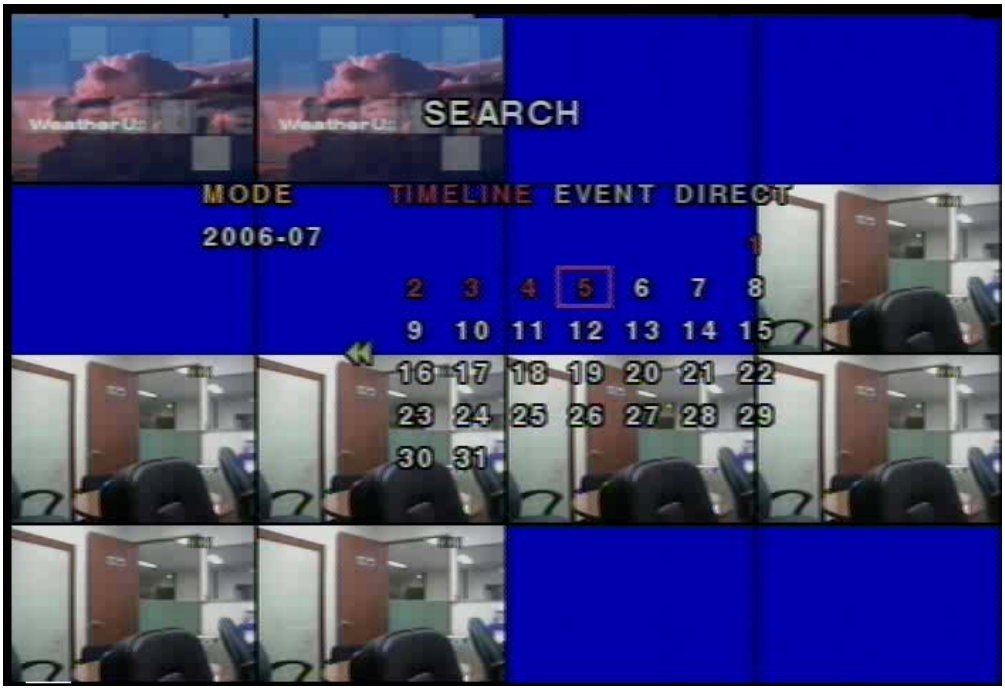

Figure 4.2.3. Search mode screen

Searching for an event:

1. Select a date to begin searching. Use the LEFT, RIGHT and UP and DOWN buttons to navigate through dates.
2. Press the SEL button to move to the CHANNEL selector.
3. Use the LEFT or RIGHT buttons to change the channel selection from ALL to any of the 16/9 available channels.
4. Press the SEL button to move to the TYPE selector.
5. Use the LEFT, RIGHT buttons to choose the type of recording.
   Options are: ALL, MOTION, SENSOR, MANUAL, or CONTINUOUS.
6. Press the SEL button to see the record list
7. To archive to USB directly from playback mode, press the ARCH button.
8. Use the UP or DOWN buttons to scroll through the list.
9. Use the LEFT and RIGHT buttons to display event lists.
10. Press SEL or PLAY/PAUSE buttons to play the video selected.

Figure 4.2.4 Search list

4-3. Play mode

During recorded event playback, myDVR switches from the SEARCH screen to PLAY mode. To return to the SEARCH LIST press the ESC button.

Figure 4.3.1. Play mode screen

Table 4.3.1. Button functions in Play mode

Button	Description
ESC	Returns to the previous menu screen, or exits from the setup menu
REW	Rewind. Pressing repeatedly adjusts playback speeds. Reverse playback speeds are indicated as -1X, -2X, -4X and -8X for normal, twice, 4 and 8 times normal speed. The speed is annunciated on the bottom right hand corner of the screen. Caution : Max 4 times play when play 16Chs at a time
F/REW	Jumps/Steps backward. – The playback position moves 60 seconds backward.
PLAY/PAUSE	Plays or pauses recorded video.
F/ADV	Jumps/Step forward –Playback position moves forward 60 seconds.
FF	Fast forward – Pressing this button repeatedly adjusts the

	playback speed. Playback speed is indicated as +1X, +2X, +4X, and +8X for normal, twice, 4 and 8 times of the regular speed, annunciated in the bottom right hand corner of the screen.
Direction Buttons	Use to select channels 1 thru 4 in full screen mode. Change to quad, or 9 split display by using the LEFT or RIGHT buttons. Channels displayed in quad or 9 split mode are designated by settings in SETUP menu.
SEL	Press to switch between current display mode and full screen mode.
CAP/USB	Press to launch the archive feature.

4-4. PTZ Control

NOTE: Requires previous configuration of PTZ devices in SETUP Mode. Press the PTZ button to .initiate device control features for a selected channel. See Figure 4.4.1. Select a menu item for the respective control features.

Figure 4.4.1. PTZ control screen.

Table 4.4.1 PTZ control menus

Item	Description
PAN/TILT	Use the direction keys for pan and tilt.

ZOOM/FOCUS	Select menu and use the Up/Down keys for zoom control. Left/Right keys control focus.
Initialize	Initializes the selected cameras.

5. Archiving Video via USB, or CDRW

It is a function of archiving a still image or video clip to USB storage, or CDRW. It is required to have captured data before the archiving.

5-1. Capturing images or video

Capture still images in live mode or while playing back recorded video. In live mode, pressing the CAP/USB button twice initiates capturing a still image. See Figure 6.1.1 for an example.

Figure 6.1.1. Archive mode screen

The still image is stored on the hard disk drive and may be transferred to a USB storage device by selecting YES, or a CD-RW disk by selecting CD-RW.

User can select backup to USB or CR-RW.

Cf : Do you want to backup? NO YES

Select media to backup USB stick / CR-RW

From playback mode, pressing the CAP/USB button launches the archiving menu. myDVR prompts offering two choices, store still image, or video. Selecting still images,

or video captures the respective type of file to the hard disk.

Insert a USB storage device. Select the type of storage device preferred, USB, or CDRW. myDVR converts the file to *. AVI file type and writes to the device selected.

5-2. Transferring still images or video into USB or CDRW

From live mode, press the ARCHIVE button. This launches the ARCHIVE screen, which prompts with a calendar for date selection.

Figure 5.2.1. Archive menu screen

Press the SEL button to retrieve a list of archived images, or video clips for the selected date.
Select a file from the archive list by using the UP or DOWN buttons, followed by pressing the CAP/USB button to transfer to a USB storage device or CDRW. myDVR checks for free space and will not save a file if there is insufficient free space on the storage media. Video files are automatically converted to the *.AVI file format affording simple playback from Windows Media Player, or other Media Players supporting MPEG4/AVI file formats.

Figure 5.2.2. List of archived files

The DivX, or comparable codec must be installed for proper playback. DivX codec may be downloaded from:

http://www.divx.com/divx/download/

6. Firmware Upgrade

6-1. Preparing USB memory with upgrade firmware

1. Before upgrading the system, on your USB memory stick, create the following directory, E:\upgrade (E:\ is just an example, your drive letter may be different).

2. Copy the firmware file to the \upgrade folder.
3. Double check the name of the firmware file. It should be app9.bin (9 channel DVR) or app16.bin (16 channel DVR).

Steps to complete Upgrade

1. Press the Setup button and enter the password. Default password is 1111
2. Select Security menu from the Setup Screen.
3. Select Admin Password followed by “12341234” and SEL button.
4. The DVR will reboot in Test mode.
5. Plug in the USB memory containing the upgrade firmware.
6. Select the UPGRADE menu to start the upgrade.
7. After the upgrade is finished, select the BOOT APPLICATION menu and then DVR will restart with the new, upgraded firmware.

7. Network Client - Remote Monitoring and Playback

1. Install the MyNVR application to your PC.
2. Follow the appropriate instruction in the network setup instruction in section 3-7.
3. Connect the DVR to the Network via the Ethernet Port on the back panel.
4. myNVR features are explained in a separate manual.

When recording is in progress, myDVR streams/transmits video identical to the quality settings applied in the record setup menu.

For Networks with limited upload bandwidth

Turning BANDWIDTH SAVING ON, adjusts myDVR to send intra frames only, saving network bandwidth. Find this feature in the Network set up screen.

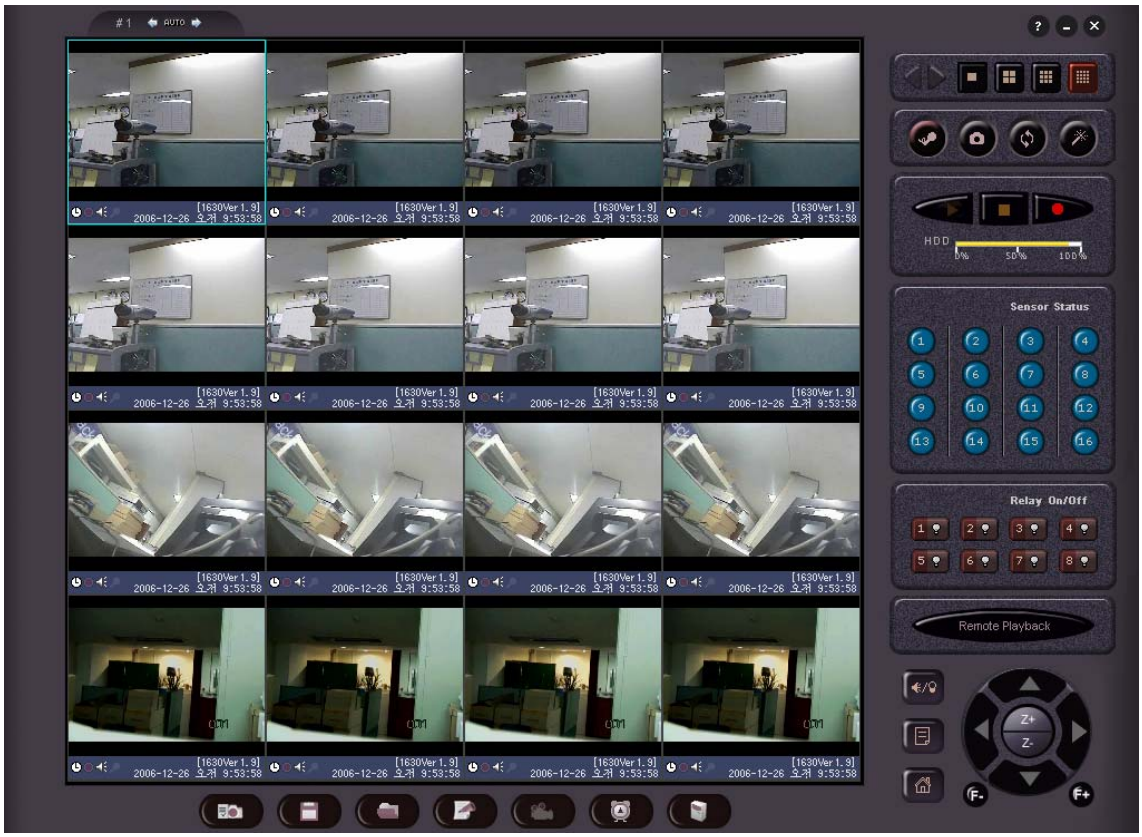

Figure 7.1. Remote Client for Live monitoring and Remote Search/Playback

8. Remote Set Up of myDVR

********** Requires Configuring Network Settings in Section 3-7 **************

myDVR provides a remote web interface to access most set up parameters. Please note that Schedule and Motion Zone set up parameters ***are are not supported*** via the web interface.

To connect to the admin page over the web you can either click on  button on the myNVR client program or connect to http://ip-address:http-port/admin.htm via Microsoft Internet Explorer. *(Only IE Exploer is supported, we do not support other third party browsers, i.e. FireFox.)*

Before loading the admin page, the browser prompts for the USER ID and Password, **The default values are "root" and "dw2001," respectively.**

See Figures below showing Set Up pages for each category. After setting all the parameters for each page.

Make sure to press the APPLY button at the bottom of the page for caching the storage of the settings.

After completing all setup values, go to the "**Save Setup**" menu and press the **SAVE** button. The system will apply the settings and reboot.

To protect your DVR from unauthorized use, iCanTek strongly recommends changing the User ID and Password.

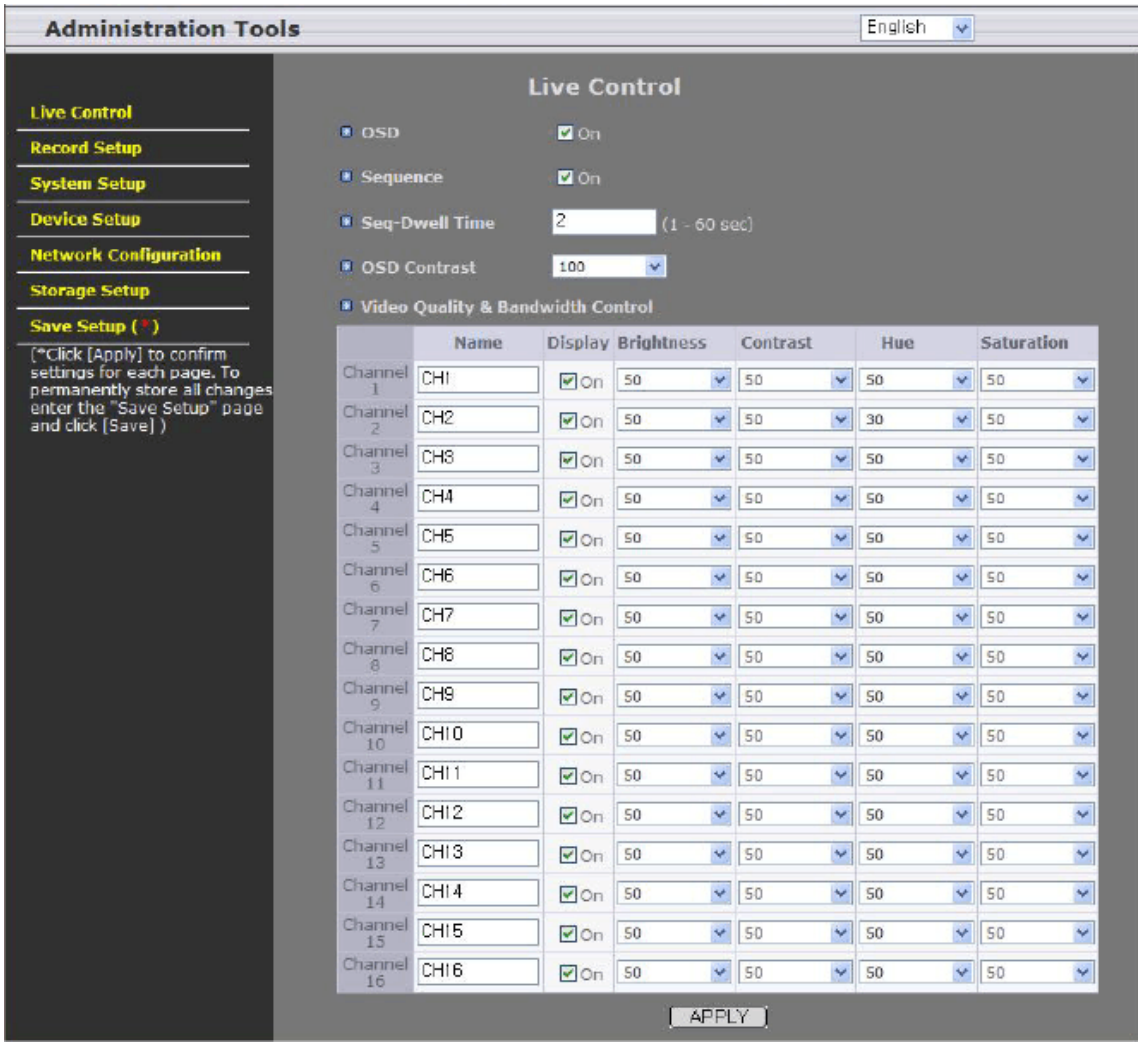

Figure 8.1. Live Control Setup Page

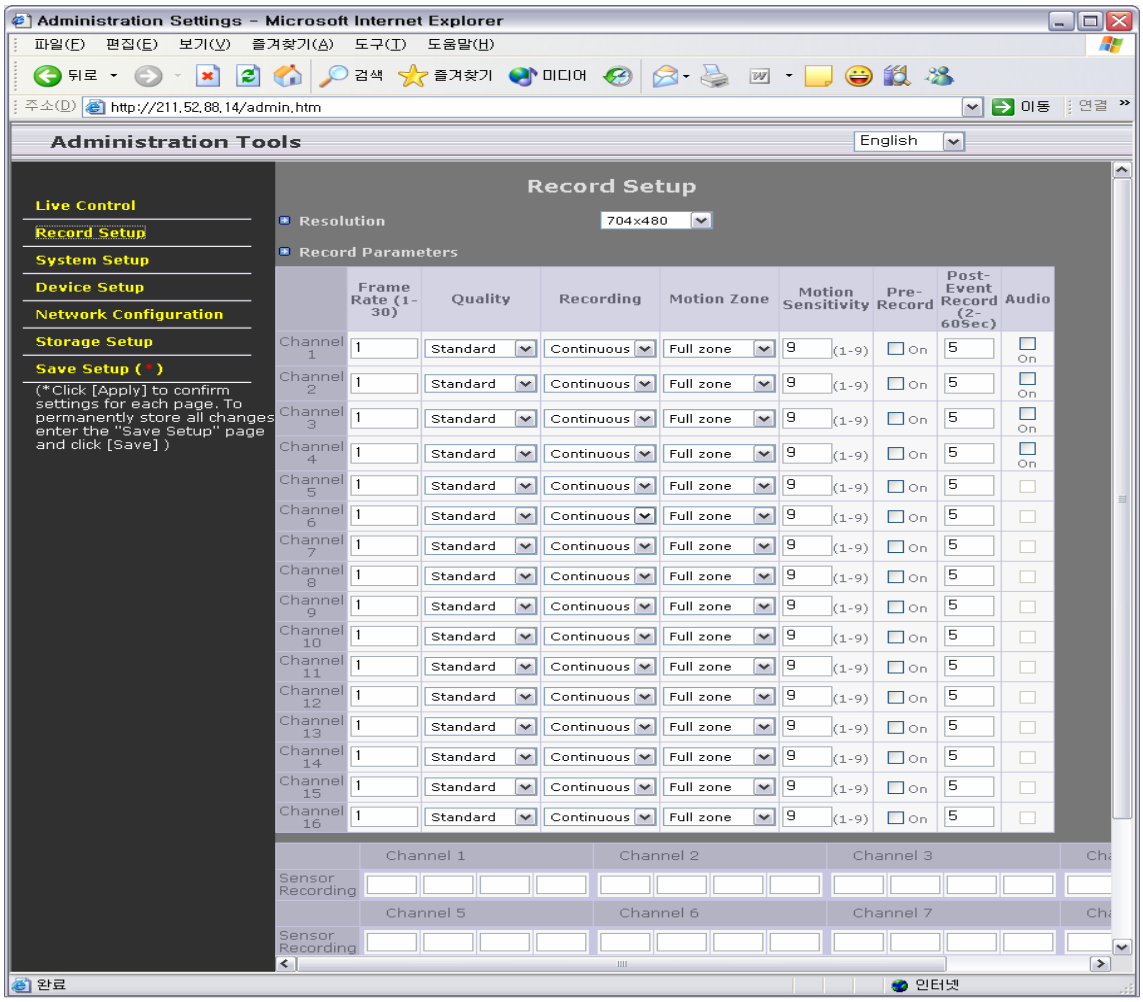

Figure 8.2. Record Setup Page

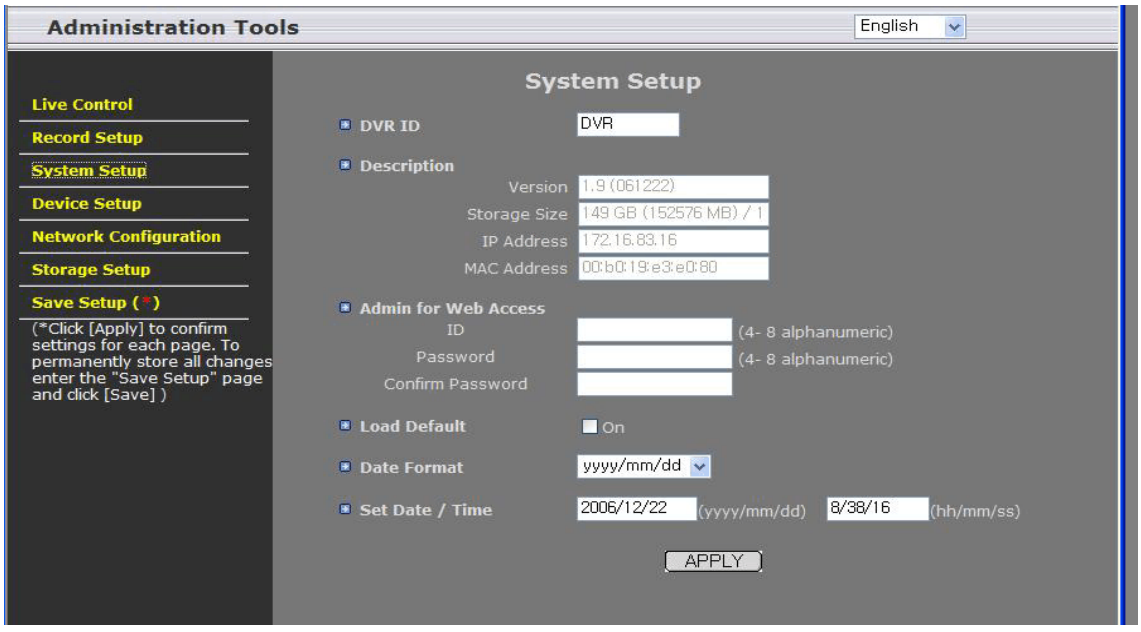

Figure 8.3. System Setup Page

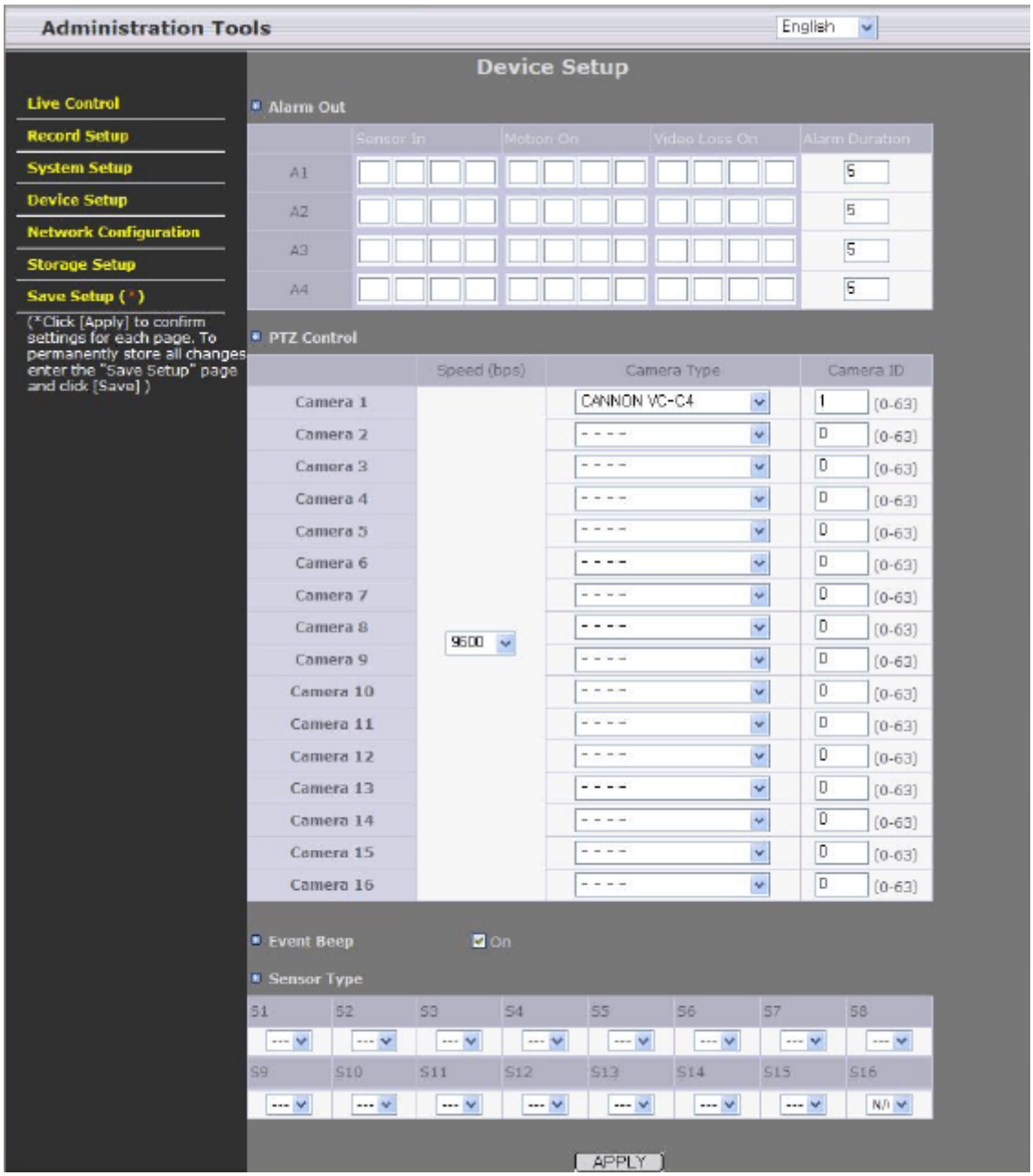

Figure 8.4. Device Setup Page

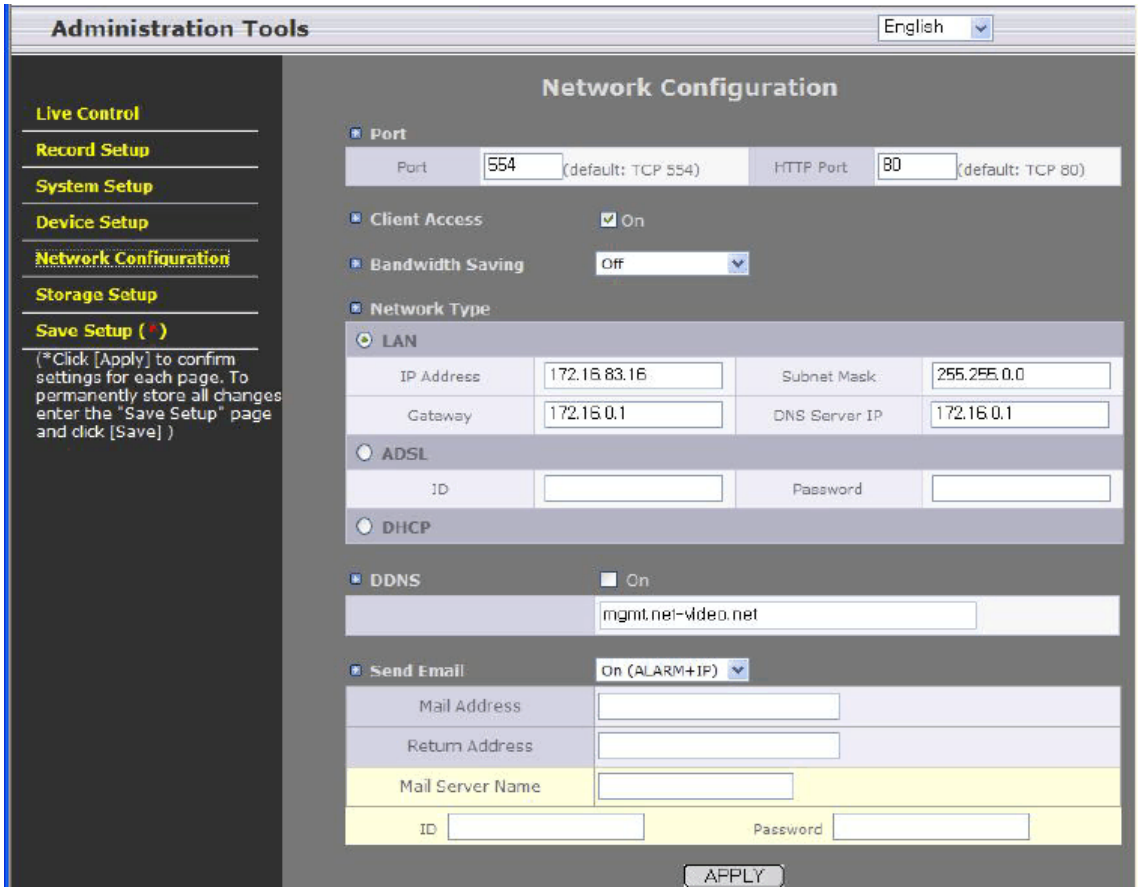

Figure 8.5. Network Configuration Page

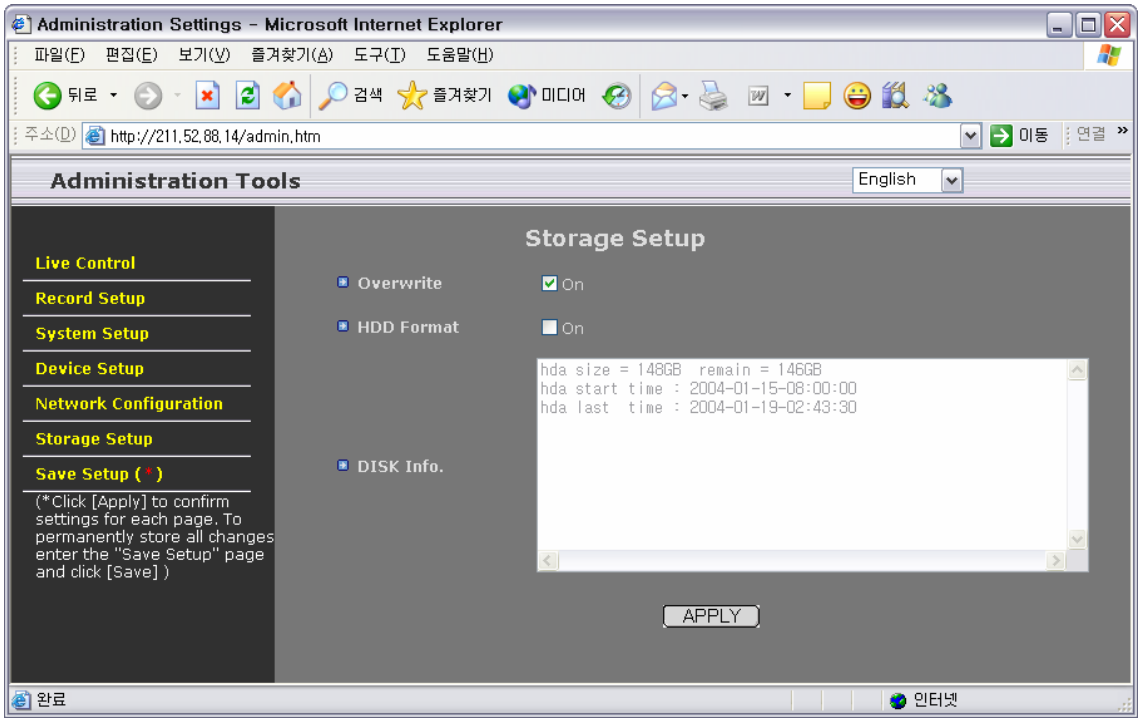

Figure 8.6. Storage Setup Page

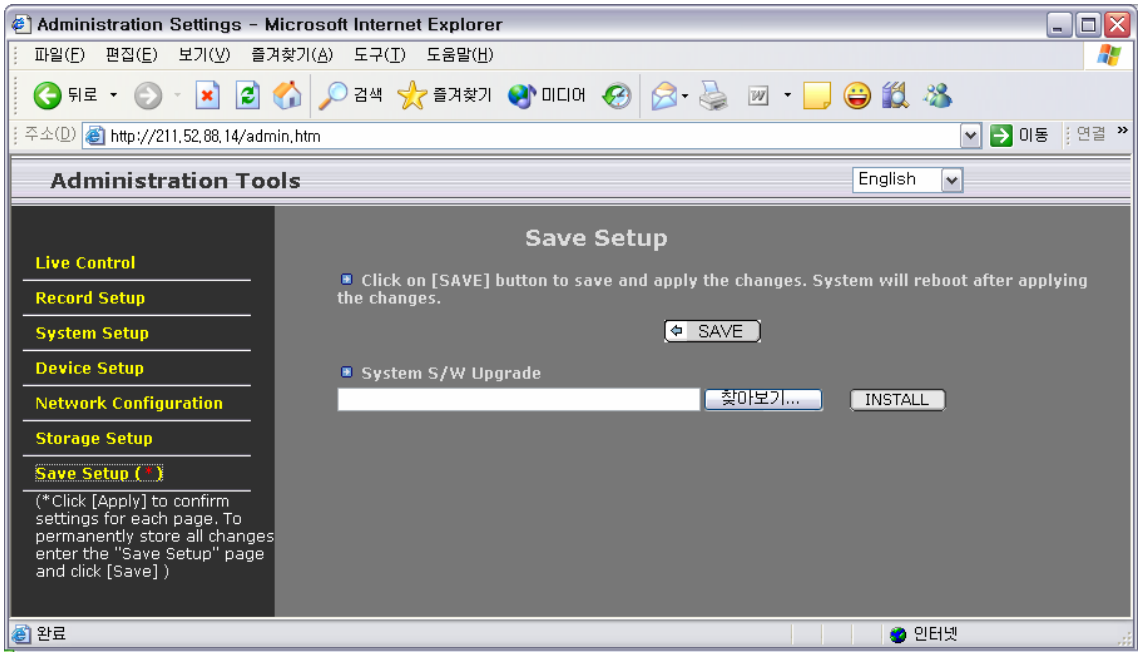

Figure 8.7. Save Setup Page