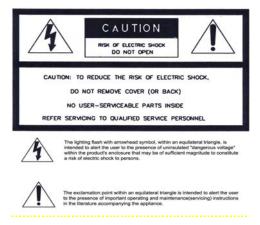


INSTALLATION/OPERATION

DIGITAL VIDEO RECORDER (MPEG4 - 4/8/16 CHANNEL)





WARNING: To prevent a risk of fire of electric shock, do not expose this product to rain or moisture.

- This installation should be made by a qualified service person and should conform to all local codes.
- This is a Class A product. In a domestic environment this product may cause radio

interference in which case the user may be required to take adequate measures.

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Edition : Dec.2006

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- **Note** This Manual was compiled with the greatest of care and all information double checked. At the time of printing the description was complete and correct. Because of the further development of products, the content of the manual might change without prior notice. Manufacturer will not be liable for damage which is directly or indirectly due to errors, incompleteness, or discrepancies the manual and the product described.
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1. FOR THE SAFETY OF CUSTOMERS

Caution before use

Please read this manual for proper use.

The caution described in this manual contains very important information for the safe use so please follow the instruction. Please keep it whether you could reach after read. For the safety and proper use, it marked various symbol. So, please read it to prevent your physical or financial loss.

Tips for installation

Please avoid water which could be the reason of firing or electric shock.

Clean the plug and socket.

Please keep the socket and plug clean so that you could avoid the fire. The plug should be tightly connected to the wall socket.

Do not put the unit on an unstable place.

Do not put the unit on an unstable place like rugged table or slope place.

Be careful for the installation position and location.

Don't put the device in humid, direct sunlight, dusty, hot, greasy condition.

Caution for proper usage

• During use

In following cases, please turn off the power and remove the plug then, please contact technical

support. If you use it continually, it could be a reason for a fire or electric shock. If smoke comes out of the device or when you smell something burning. If an alien substance is split into the device.

If the device is dropped or the case is damaged. If the power cable has been damaged (ex. slipped etc.) No picture being displayed.

• Don't open the case or modify.

There is the high voltage sector inside the unit so, if you open the case or modify it, it could cause the fire or electric shock.

• Don't put a cup containing water or juice and small material on the device

If you spilt water or alien substance into the device, it could cause the fire or electric shock.

• Don't insert any alien substance.

Don't put alien substance through the fan.

• Don't touch during lightning strikes.

When the lightning starts, don't touch the plug or cable. It could cause the electric shock.

• Don't touch the power plug with wet hands.

Don't unplug with wet hands. It could cause an electric shock. Don't pull out the power cable.

• Don't pull out the cable when plug out from the wall socket.

It could damage the cable and cause the fire. Please pull out holding the plug.

• When you move, please remove plug.

If you move the device while the plug is in the socket, it could cause a fire by damaging the cable.

• Don't block the ventilation window.

When the ventilation window is blocked, it could cause the fire by the generation of internal heat.

• Don't put heavy items on the device.

When balance is lost and the unit falls, the customer could be hurt.

• Keep the plug and socket clean.

Regarding the cleaning, please contact your Installer. If there is too much dust inside the device, it could cause the fire or internal short.

• Clean the plug and socket.

Please keep the socket and plug clean to avoid fire. The plug should be tightly connected to the wall socket.

• Caution when you don't use the device for a long time.

If you don't use the device for a while, please switch off and unplug.

2. DESCRIPTION OF PARTS AND FUNCTIONS

2-1 COMPOSITION OF UNIT

Standard Components



DVR



Power Cable



Remote Controller



Battery

PRODINGY DVR
Digital Video Recorder System
MANUAL
Please read this manual before using

User Manual

2-2 FEATURES

• Convenience

- User-friendly UI(Text Based User Interface)
- Easy-to-use menu composition
- Easy-to-use recorded data search (Time, Date, Motion, Alarm)

• Stability

- Auto restart after power interruption
- DB structure offers data stabilization and best storage utilization

• Expandability

-Various remote multiple DVR's can be controlled by Web browser (PC Client System) -Internet Explorer ActiveX plugin for Live View and Playback

• Technology

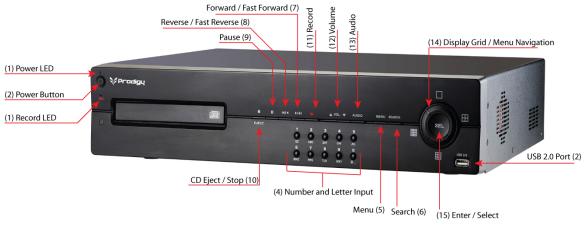
- -Embedded LINUX OS
- -Total maximum recording rate 120 fps
- -High-resolution & high-quality MPEG-4 algorithm
- -Using Water marking & scrambling technologies,
- -Strong protection recorded data
- -MPEG-4 : 1 ~ 2 Kbytes per image with resolution 360x240
- -Front USB 2.0 for Backup and Firmware Upgrades

• Functionality

- Variable recording function (normal, alarm, motion, schedule)
- Full channel real-time monitoring
- Live monitoring, recording, playback, backup, remote access at the same time
- Multi channel playback
- Variable events notification to e-mail, buzzer or PC Client system

2-3 DESCRIPTION OF PARTS AND FUNCTION

2-3-1 Front Panel

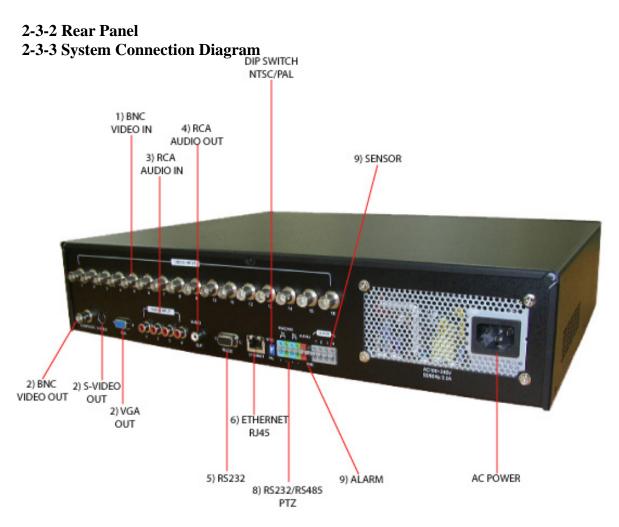


- (1) LED REC : Recording status (When recording is on, the red light is blinking)
 PWR : System Power On/Off (When power is on, the green light is lit up)
- (2) USB 2.0 PORT USB2.0 connector
- (3) POWER BUTTON System Power On/Off
- (4) NUMERIC & CHARACTER Input for numeric & character
- (5) MENU Displays on the menu on the screen
- (6) **SEARCH** Entering search mode directly
- (7) **PLAY** \triangleright (\triangleright) Playback of the recorded data
 - By depressing button once more on play mode, fast forward will be executed
- (8) **REWIND** (◄) ◀ Playback in reverse
- (9) PAUSE () To freeze picture on playback mode and live mode.

(10) STOP / EJECT (

- To stop playback and go back to live mode.
- To eject CD-RW

- (11) REC (•) Starts & stops manual recording of relevant camera in a full screen live mode.
- (12) VOL (\blacktriangle \lor) To increase and decrease the volume.
- (13) AUDIO (8/16CH Only) When user selects "audio" key, available audio will be switched.
- (14) ARROW KEY Curser shifting on the menu
 - Display the divided screen
- (15) **SELECT** Menu selection (Enter the selection)



- (1) Video Input (BNC) 16 Camera inputs ($1.0 \text{ v p-p}, 75\Omega$)
- (2) Video Output (BNC / S-VIDEO / VGA) Composite Output through BNC / S-VIDEO / VGA
- (3) Line Audio Input 4 Audio Input through line
- (4) Audio Output 1 Audio Output
- (5) **RS232** 1 Serial Communication
- (6) Network Port (RJ-45) Available to monitor live screen and recorded data on the HDD through Internet or LAN
- (7) DIP switch (NTSC/PAL Video Selection) Selectable either NTSC or PAL
- (8) RS422 / 485 1 Serial Communication for Pan / Tilt Camera
- (9) Alarm/Sensor Alarm / 4 Sensor input / 1 output port
- (10) AC Power AC 110~240 V (Free Voltage)

ATTENTION

When the video format is changed, the system should be re-booted The video format should be selected before booting (NTSC and PAL)

Default DVR Passwords

"00000000" i.e. 8x Zero's. Password is required if you need to power-down or stop recording. Prompt will be displayed asking for password.

Cancel

Web Client

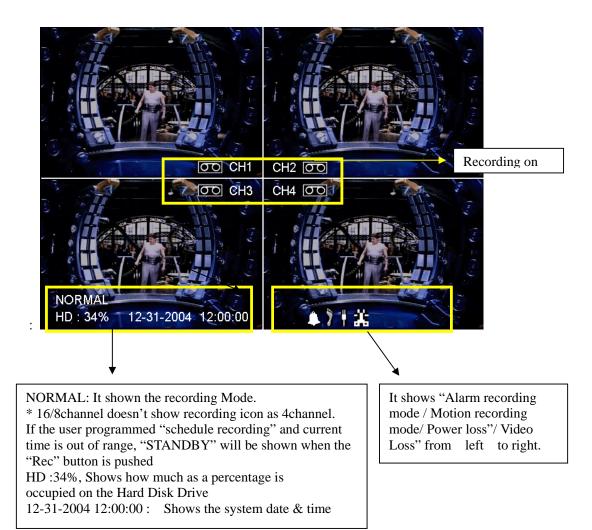
User ID "*admin*" (not case sensitive). Admin ID cannot be changed this is full administrator ID. Password "*00000000*" i.e. 8x Zero's

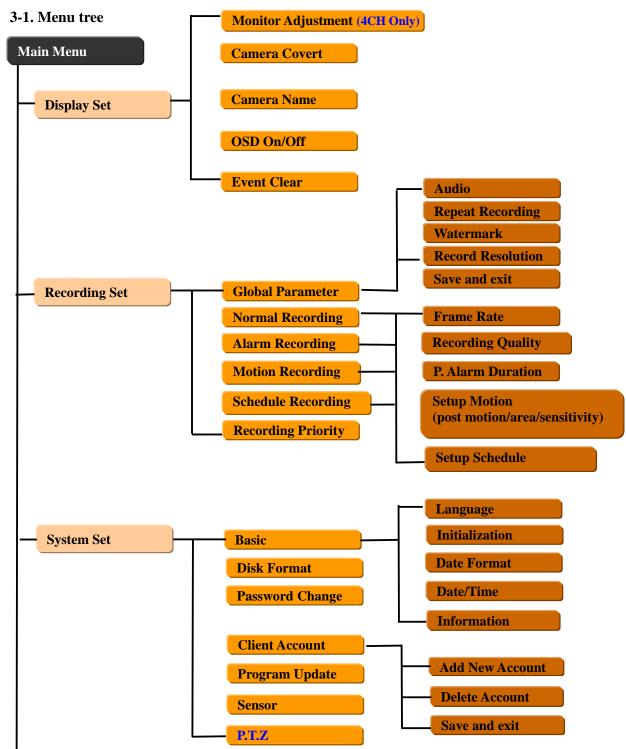
Login	
ID	admin
Password	******
ок	Cancel

2-3-4. Remote Controller

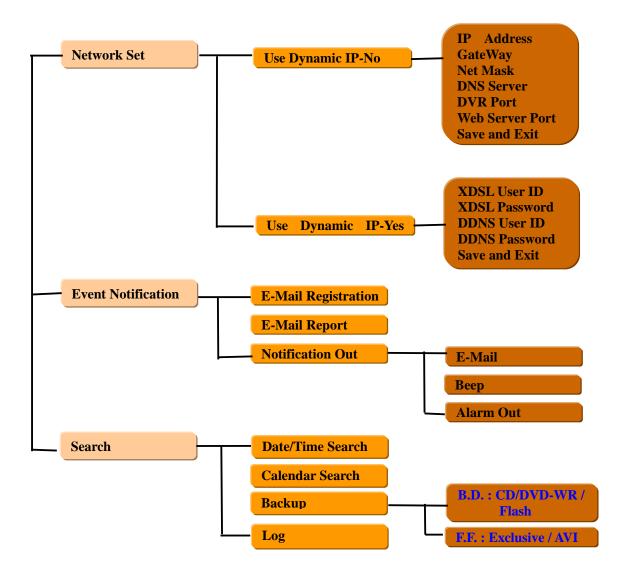


2-3-5. OSD Description





B. MENU-STRUCTURE



3-2 Main Menu

<u>NOTE</u>

Before using, be sure to setup the unit properly.

When **Menu** button is pressed, Main Menu will appear as shown below, use the following buttons on the dvr or remote control to move the cursor to a different submenu while the system is ON.

Please use $UP(\blacktriangle)$ or $DOWN(\checkmark)$. Use the "SELECT" button to enter the submenu.

Display Set

DISPLAY SET

```
    MONITOR ADJUSTMENT (4CH Only)
    CAMERA COVERT
    CAMERA NAME
    OSD ON/OFF
    SET DISPLAY SEQUENCE(8/16CH Only)
    EVENT CLEAR
```

• Monitor Adjustment- (4CH Only)

It controls the verticality and horizontality of live picture. With the background screen shown, use

Left(\triangleleft), Right(\triangleright), Up(\blacktriangle), Down(∇) button for setting the location.

- **Camera Covert** Hide channels in live, and network transmission. Camera will be recorder if recording is On but will now be shown on Monitoring screens (Live, network)
- Camera Name Add or Change camera display name
- OSD On/Off Turns ON or OFF On-Screen-Display



SET DISPLAY SEQUENCE
► FULL DISPLAY SEQUENCE
QUAD DISPLAY SEQUENCE
START FULL DISPLAY SEQUENCE
START QUAD DISPLAY SEQUENCE

Sequence dwell time can be selected among 5,10,15,30,45,60 sec. When you select "Start Full or Quad Display Sequence", monitor switch mode will be started(Or, user can also select "SEQ" button on the remote controller)

• Event Clear

It is for erasing OSD characters related with events.

• Recording Set

All recorded data can be saved in the format of watermark or scrambling when user select "watermark :On" After downloading the saved data being checked, user can confirm whether the video has been edited/modified by someone using our PC software we provided.

RECORDING SET

►GLOBAL PARAMETER NORMAL RECORDING ALARM RECORDING MOTION RECORDING SCHEDULE RECORDING RECORDING PRIORITY

- **Global Parameter** All setup values for Audio/ Repeat/ Watermark / Resolution will be applied globally to all channels.
- Normal Recording Executes the continuous recording according to the designated set-up value.
- Alarm recording Executes recording when sensor is triggered
- Motion recording Executes recording when motion is captured.
- Schedule recording Executes recording according to the program.
- **Recording priority** Specifies the priority among 4 kinds of recording methods. (Normal, Alarm, Motion, Schedule)

<u>NOTE</u>

"Instant playback" (direct playback via >, not search mode) is available. The file is created on the unit of

500Mbyte

	Record	ing P)aram	eter
--	--------	-------	-------	------

RECORDING PARAMETER
► AUDIO : ON/OFF
REPEAT RECORDING : ON/ OFF
WATERMARK : ON /OFF
RECORDING RESOLUTION
SAVE AND EXIT

Audio Recording(4CH)

4CH : On/Off. When audio is "on", the audio will be input globally.

RECORDING PARAMETER
►AUDIO 1 RECORDING: OFF / CH1
AUDIO 2 RECORDING: OFF / CH2 AUDIO 3 RECORDING: OFF / CH3
AUDIO 4 RECORDING: OFF / CH4
REPEAT RECORDING OFF WATERMARK OFF
RECORDING RESOLUTION
SAVE AND EAT

- Audio Recording(8/16CH) 8/16CH: 4 Audio are available. (Audio 1,2,3,4 are fixed to Video 1,2,3,4).
- **Repeat recording** Sets the recording mode when the HDD capacity is exceeding. It can be selected between "On" (overwrite) / "Off" (stop).
- **Watermark** Watermark On or OFF can selected. This menu is for protecting video data from being forged when it exports to the digital media for backup.
- Recording Resolution It supports 360x240 / 720x240 mode. The default is 360x240
 Use Left "←, →" Right button is to change settings.

<u>NOTE</u>

- 1. The resolution is applied globally to all channel . (360x240 or 720x240)
- 2. In "Global parameter" mode (Normal, Alarm, Motion, Schedule)" settings cannot be changed while recording. To change any settings Recording, must be TURNED OFF first.

	Normal R	ecording
NORI	MAL RECORDING	(4channel Only)
► CH1	FRAME RATE	: 30FPS
CH2	FRAME RATE	: 30FPS
CH3	FRAME RATE	: 30FPS
CH4	FRAME RATE	: 30FPS
CH1	RECORDING QU	ALITY : HIGH
CH2	RECORDING QU	
CH3	RECORDING QU	ALITY : HIGH
CH4	RECORDING QU	ALITY : HIGH
SAVE	E AND EXIT	

• Frame Rate (fps) :4channel

The above shows available frame rate each channel.

In 360x240 mode, 0~30fps is available each channel (4 channel totally 120fps) and In 720x 240 mode 1~15fps each (4 channel totally 60fps, max. each channel 30 fps can be set. For exam, Ch.1 - 30 fps, Ch2 - 30 fps, Ch3 - 0fps, Ch4 - 0fps. ~)

Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

(8/16CH Only) FRAME RATE	
FRAME RATE	OFF
	: 8FPS
FRAME RATE	: 8FPS
FRAME RATE	: 8FPS
FRAME RATE	: 8FPS
RECORDING QUA	ALITY : HIGH
ND EXIT	
	FRAME RATE FRAME RATE RECORDING QUA RECORDING QUA RECORDING QUA

• Frame Rate (fps) :8/16 channel

The above shows available frame rate each channel.

In 360x240 mode, 7.5 fps is available each channel (16/8 channel totally 120fps)

In 720x 240 mode 3 fps each channel (16/8 channel totally 60fps).

Individual frame rate control is available on 4channel.

Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

- Recording Quality 3 Options can be selects among High, Mid, Low.
- Save and Exit All the set-up value will be stored and move to the previews menu.



Either one is taken among 4 sensors, the recording will be activated as per set-up value.

ALARM RECORDING (4channel Only)				
► CH1	FRAME RATE	: 30FPS		
CH2	FRAME RATE	: 30FPS		
CH3	FRAME RATE	: 30FPS		
CH4	FRAME RATE	: 30FPS		
CH1	RECORDING QUA	LITY : HIGH		
CH2	RECORDING QUA	LITY : HIGH		
CH3	RECORDING QUA	LITY : HIGH		
CH4	RECORDING QUA	LITY : HIGH		
POST	FALARM DURATION	N : 5sec		
SAVE	E AND EXIT			

• Frame Rate (fps) :4channel

The above shows available frame rate each channel.

In 360x240 mode, 0~30fps is available each channel (4 channel totally 120fps) and In 720x 240 mode 1~15fps each (4 channel totally 60fps, max. each channel 30 fps can be set. For exam, Ch.1 - 30 fps, Ch2 - 30 fps, Ch3 - 0fps, Ch4 - 0fps. ~) Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

A RECORDING (8/16ch	nannel Only)
1 (8/16CH Only)	
FRAME RATE	: 8FPS
RECORDING QUA	LITY : HIGH
LARM DURATION	: 5sec
AND EXIT	
	1 (8/16CH Only) FRAME RATE FRAME RATE FRAME RATE FRAME RATE RECORDING QUA RECORDING QUA RECORDING QUA RECORDING QUA

• Frame Rate (fps) :8/16 channel

The above shows available frame rate each channel.

In 360x240 mode, 7.5 fps is available each channel (16/8 channel totally 120fps)

In 720x 240 mode 3 fps each channel (16/8 channel totally 60fps).

Individual frame rate control is available on 4channel.

Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

- Recording Quality 3 Options can be selects among High, Mid, Low.
- **Post Alarm Duration** After alarm activates, sets the time in seconds on how long the recording continues. The value is selectable among 5/ 30/ 60/ 90/ 120/ 150/ 180/ 210/ 240 sec.
- Save and Exit All the set-up value will be stored and move to the previews menu.

Motion Recording

MOT	ION RECORDING (4	channel Only)
►CH1	FRAME RATE	: 30FPS
CH2	FRAME RATE	: 30FPS
CH3	FRAME RATE	: 30FPS
CH4	FRAME RATE	: 30FPS
CH1	RECORDING QUA	LITY : HIGH
CH2	RECORDING QUA	LITY : HIGH
CH3	RECORDING QUA	LITY : HIGH
CH4	RECORDING QUA	LITY : HIGH
SETU	IP MOTION	
SAVE	E AND EXIT	

• Frame Rate (fps) :4channel

The above shows available frame rate each channel.

In 360x240 mode, 0~30fps is available each channel (4 channel totally 120fps) and In 720x 240 mode 1~15fps

each (4 channel totally 60fps, max. each channel 30 fps can be set.

For exam: Ch.1 - 30 fps, Ch2 - 30 fps, Ch3 - 0fps, Ch4 - 0fps. ~)

Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

MOTIC	N RECORDING (8/16	channel Only)
► PAGE :	1 (8/16CH Only)	
CH1	FRAME RATE	: 8FPS
CH2	FRAME RATE	: 8FPS
CH3	FRAME RATE	: 8FPS
CH4	FRAME RATE	: 8FPS
CH1	RECORDING QUA	LITY : HIGH
CH2	RECORDING QUA	LITY : HIGH
CH3	RECORDING QUA	LITY : HIGH
CH4	RECORDING QUA	LITY : HIGH
SETUP	MOTION	
SAVE A	AND EXIT	

• Frame Rate (fps) :8/16 channel

The above shows available frame rate each channel. In 360x240 mode, 7.5 fps is available each channel (16/8 channel totally 120fps). In 720x 240 mode 3 fps each channel (16/8 channel totally 60fps). Individual frame rate control is available on 4channel. Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

• Recording Quality - 3 Options can be selects among High, Mid, Low.

Set	gup (Moł	}i⊙n]		
SETUP	P MOTIC	DN				
►PAGE :	1 (8/160	CH On	ly)			
POST	MOTIO	ON :	30 SEC	2		
SET	CH1	MO	TION A	REA		
SET	CH2	MO	TIION A	AREA		
SET	CH3	MO	TION A	REA		
SET	CH4	MO	TION A	REA		
CH1	MOTIO	ON SE	NSITIV	/ITY:	HIGH	
CH2	MOTIO	ON SE	NSITIV	/ITY:	HIGH	
CH3	MOTIO	ON SE	NSITIV	/ITY:	HIGH	
CH4	MOTIO	ON SE	NSITIV	/ITY:	HIGH	
SAVE	AND EX	TT				

• **Post Motion** - how long the recording will lasts after motion is activated. The value is among 30 ~ 240 sec.

Set CH : MOTION AREA

Select the channel to customize motion detection area

	1	2		
	3	4		

The detection area is divided 8x6 cells. Default is all-cells active mode. White color box indicates that the area is disabled. Press **SEL** to Enable or Disable each box. Use $\leftarrow \rightarrow$ to navigate through boxes.

• Motion Sensitivity - 3 Options can be selects among High, Mid, Low .

NOTE

When you record the camera image with the motion recording mode, the data file will be saved depending on the motion sensitivity.

|--|

SCHE	EDULE RECORDI	NG (4channel Only)
► CH1	FRAME RATE	: 30FPS
CH2	FRAME RATE	: 30FPS
CH3	FRAME RATE	: 30FPS
CH4	FRAME RATE	: 30FPS
CH1	RECORDING QUA	ALITY : HIGH
CH2	RECORDING QUA	ALITY : HIGH
CH3	RECORDING QUA	ALITY : HIGH
CH4	RECORDING QUA	ALITY : HIGH
SETU	JP SCHEDULE	
SAVE	E AND EXIT	

• Frame Rate (fps) :4channel

The above shows available frame rate each channel.

In 360x240 mode, 0~30fps is available each channel (4 channel totally 120fps) and In 720x 240 mode 1~15fps each (4 channel totally 60fps, max. each channel 30 fps can be set. For exam, Ch.1 - 30 fps, Ch2 - 30 fps, Ch3 - 0fps, Ch4 - 0fps. ~) Frame rate can be changed pushing the " \leftarrow , \rightarrow " button

SCHE	EDULE RECORD	ING (8/16channel Only)
►PAGE	1	
CH1	FRAME RATE	: 30FPS
CH2	FRAME RATE	: 30FPS
CH3	FRAME RATE	: 30FPS
CH4	FRAME RATE	: 30FPS
CH1	RECORDING QU	ALITY : HIGH
CH2	RECORDING QU	ALITY : HIGH
CH3	RECORDING QU	ALITY : HIGH
CH4	RECORDING QU	ALITY : HIGH
SETU	JP SCHEDULE	
SAVE	E AND EXIT	

• Frame Rate (fps) :8/16 channel

The above shows available frame rate each channel.

In 360x240 mode, 7.5 fps is available each channel (16/8 channel totally 120fps)

In 720x 240 mode 3 fps each channel (16/8 channel totally 60fps).

Individual frame rate control is available on 4channel.

Frame rate can be changed pushing the " \leftarrow, \rightarrow " button

Recording Quality

It selects among High, Mid, Low .

Setup Schedule

SCH	IEDULE SETUP
	0 4 8 12 16 20
MON	
TUE	
WED	
THU	
FRI	
SAT	
SUN	
SAVE A	ND EXIT

"SEL" button is used for selecting relevant time and day. Arrow Key will be used for movement.

NOTE

Any changes made to the recording settings **Recording must be off** for changes to take

Recording Priority

RECORDING PRIORITY ►1ST PRIORITY: NORMAL 2ND PRIORITY: MOTION 3RD PRIORITY: SCHED 4TH PRIORITY: ALARM SAVE AND EXIT

Set the priority among 4 kinds of recording methods. If Normal is 1st priority, the recording is proceeded as NORMAL recording (Continues) setup.

Expl: If motion is selected 1st than DVR will be recording MOTION only.

System Set	SYSTEM SET
	► BASIC
	DISK FORMAT PASSWORD CHANGE
	PROGRAM UPDATE
	CLIENT ACCOUNT SENSOR
	PTZ
Basic	BASIC
	► LANGUAGE : ENGLISH
	INITIALIZATION
	DATE FORMAT : mm-dd- yyyy DATE/TIME : 11-18-2004 03:50:31
	INFORMATION
	SAVE AND EXIT

- Language The default is English
- **Initialization** All the menu value will be returned to the factory default. To initialize the system, should not be recording.
- **Date Format** Select among the formats, mm-dd-yyyy / dd-mm-yyyy, yyyy-mm-dd. If date format needs to be changed, recording must be turned off.

<u>NOTE</u>

PLAYBACK FOLLOWING TIME CHANGE

DVR uses the time and date to index video on the hard disk drive so you can find it later. Changing the time can cause the DVR to work improperly when you try to play back video. If time is set to an hour ahead, there will not be any problem. Most of the problems occur when time or date are set backward, this can cause the DVR to have duplicate video and it will not be accurate.

Expl:

Such as during the October Daylight Saving Time changeover, if you try to search for video between 1 a.m and 2 a.m, the recorder may not operate properly because there will be two hours of recorded video during this time period. To view video during this overlapping time period, you must start playback before 1 a.m, then recorder will play both hours between 1 a.m and 2 a.m.

You cannot do a backward search through the overlapping time . But, you can do forward search.

Disk Format

Menu > System Set > Disk Format > Internal HDD – change setting to YES

```
DISK FORMAT
```

```
►INTERNAL HDD : YES
EXTERNAL DEVICE // HDD : NOT FOUND
EXECUTE FORMAT
```

Password is required for Disk to be formatted (default ADMIN password is "00000000" You must turn OFF recording and cannot be in Playback mode to perform a format. Format will erase the entire Hard drive.

Client Account

Main Menu > System Set > Client Account -

CLIENT ACCOUNT

► ADD NEW ACCOUNT DELETE ACCOUNT SAVE AND EXIT

CLIENT LIST

All new Clients must be created from the DVR with the User Name and Password. To ADD NEW ACCOUNTS you must be logged in as a ADMIN: 00000000

Program Update

The latest firmware version can be upgraded through USB 2.0 Port using Memory Stick. When

memory stick connects USB port, will be shown on the right corner of monitor. Then,

enter **Main Menu > System Set > Program Update**. If the system recognizes the new program, it will promp you on the monitor "**New program found**" will be displayed on the screen. Press "Select" Key to start upgrading. Percentage Progress will be displayed.

NOTE.

1. If the system doesn't recognize "new program", " New program not found" will be displayed.

 Compatible USB memory jump drives: Lexar Jumpdrive 128/256MB, Sandisk Mini Cruzer 128MB & Cruzer Micro 256MB. (other brands may work)

3. For System Stability, During the upgrade please turn off

- 1) Recording
- 2) Playback
- 3) Network connection

4. After updating program, reboot is required.

Sensor

SENSOR		
►SENSOR 1 INPUT SENSOR 2 INPUT SENSOR 3 INPUT SENSOR 4 INPUT ALARM OUT SAVE AND EXIT	: N.C : N.O : NONE : NONE : ON	

Sensor Input options are: N.C, N.O, None .

Select Closed Contact or Open Contact or NONE.

PTZ

PTZ Menu

```
PAN / TILT / ZOOM
FOCUS
SETUP
Channel : 1 ~16
ID : OFF, 1 ~15
Protocol : Pelco-D ~ P
Baud Rate : 2400, 4800, 9600BPS
Save and Exit
```

Available Protocol $\$ are Pelco D, P / Baud Rate can be selection 2400, 4800, 9600BPS. Check rear of the DVR for RS422/485 connections marked with + ,

3. Network Set

NETWORK SI	ET
USE DYNAMIC	CIP: NO
IP ADDRESS	:000.000.000.000
GATEWAY	:000.000.000.000
NETMASK	:000.000.000.000
DNS SERVER	:000.000.000.00
DVR PORT	2000
WEBSERVER I	PORT 80
SAVE AND EX	IT

To enter Network Set menu, the admin logon will need to be entered. (default is 00000000).

When the Static IP is being used, each address is required to be filled out as per network environment.

IP Address, Sub Net Mask, Gateway and Primary DNS (Gateway may be used)

In static IP environment, no need to change DVR & Web Server Port. When behind a Router (firewall) both ports need to be opened for the IP address assigned to the DVR. **Ports that need to be forwarded are 2000 and 80**. If port 80 cannot be opened on the router, the port # may be changed on the DVR to other port # (expl: Web Port: 88) When connecting with the static IP address use $_._._.$ **:88** (port # must be identified after the IP address if it's different from the default port 80.

As per DVR & Web server port, refer to Appendix 4.

If user is on the condition of "Dynamic IP", the following will be shown.

NETWORK SET	
►USE DYNAMIC IP: YES	
XDSL USER ID :	
XDSL PASSWORD :	
DDNS USER ID :	
DDND PASSWORD:	
REGISTERED DOMAIN:	
SAVE AND EXIT	

For users in dynamic IP, either XDSL or Cable . In XDSL environment XDSL user ID and

password is required in most cases it is the e-mail address and password of ISP provided account. In cable environment, Mac address is required to be filled out irrespective of ID and password.

DDNS Server is needed when clients need to connect to the DVR with a Dynamic IP, since the IP address always changes from the ISP. Registering a ID & domain with <u>www.dyndns.org</u>, is free by clicking on DDNS server follow instructions on page 71 Appendix 4.

Event Notification

EVENT NOTIFICATION

► E-MAIL REGISTRATION E-MAIL REPORT NOTIFICATION OUT SAVE AND EXIT

E-MAIL REGISTRATION

► USER1 USER2 USER3 SENDER MAIL ID SENDER DOMAIN SEND TEST MAIL SAVE AND EXIT

At E-Mail registration menu, user registers the e-mail address to receive several "Event Notification ". To register the e-mail address, 1) input the address 2) push "Save and Exit" 3) Try "Send the test mail".

NOTE :

1. Sender mail ID & domain should be input. If not, e-mail doesn't work. If you input Quantum4 as mail ID & Norbain.co.uk as domain, sender's information will have "Quantum4@norbain.co.uk.

2. IP & Gateway in the system should be set up first .

E-MAIL Report is available among Daily/ Weekly/ Immediately. Daily report will be done 00(H):00(M) each day and weekly report will be done 00(H):00(M) on Sunday.

• Notification Out

NOTIFICATION OUT

E-MAIL BEEP ALARM-OUT

When event happens, the each output is operated as per setup value. Events such as "Video Loss/ Alarm/ Motion/Power Loss" will be sent to E-Mail address or Beep or Alarm according to setup value. 4. Search – Press Search

SEARCH

DATE/TIME SEARCH CALENDAR SEARCH BACKUP LOG

Date / Time Search

DATE/TIME SEARCH

EVENT : ALL HDD : INTERNAL DATE : 11-12-2004 13:10:50 PLAY

the $(\blacktriangle), (\blacktriangledown)$ buttons to select the clauses . When you select the specific time/date, then select "Play", which executes the playback.

	CA	ALENE	OAR SI	EARCH	ł			
	► YE	EAR :20	005					
	MONTH: 12							
	SUN	MON	THE	WED	тни	FDIS	AT	
•	301	1	2	[3]	4	5	6	
	7	8	9	10	11	12	13	
	14	15	16	10	18	12	20	
	21	22	23	24	25	26	20	
	21	22	23 30	24	23	20	21	
	20	29	50					

Recorded days are shown in [date] . Using " \rightarrow , \leftarrow "buttons, move to a specific time/date. To enter submenu (Time), please use "SEL" button. Use the arrows to change digits.

SEARCH RESULT	SEARCH RESULT
DATE 11-12-2004	DATE/HOUR 11-12-204/07
HOUR 0 4 8 12 16 20	MIN 0 12 24 36 48
CH1	CH1
CH2	CH2
CH3	CH3
CH4	CH4

White Bar indicates recorded data. Scroll " \rightarrow , \leftarrow " to select a recorded time period and press **SEL** to play clip The area which has data will be shown in white and using "SEL", user can start the playback.

BACKUP

1. INTERNAL

BACKUP

►BACKUPDEVICE: CD/DVD-R DEVICE FORMAT FILE FORMAT: EXCLUSIVE/AVI FROM: 12-07-2004 12:46:30 TO :12-07-2004 12:47:30 CHANNEL : 1 CALCULATING BACKUP SIZE TRANSFER FREE/TOTAL SPACE 49M/245M REQUIRED SPACE 60M:

Backup Device

Internal CD-R or DVD-R is available.

1. When DVR system tries to read disk or drive, "READING OPTICAL MEDIA" message will be shown and no key buttons works.

• Device Format

Format for CD/DVD-R is not needed. When using CD/DVD-RW media, format is necessary before burning.

• File Format

Exclusive AVI file is available . Avi file is played with window media player and exclusive file will be played with our own player. Player is downloaded automatically together with video data.

• From/ To

You can set up the time which is required to be backed up to the internal CD/DVD-R Drive .

• Channel

When you select exclusive, all channels can be downloaded at the same time. When burning in AVI only one channel can be copied at a time to a media.

• Transfer

Downloading the backup data to internal disk . Percentage during downloading will be shown.

> Note : Network should be disconnected during downloading to internal DVD/CD-R disk. If network is connected, connection will be terminated during "making backup file"

2. EXTERNAL

When Memory stick connects to the USB port, USB icon



will be shown at the bottom of

Monitor indicating that an external media is connected. Also, the following menu will be shown.

BACKUP

►BACKUP DEVICE: FLASH DEVICE FORMAT FILE FORMAT: EXCLUSIVE/AVI FROM: 12-07-2004 12:46:30 TO :12-07-2004 12:47:30 CHANNEL : 1 CALCULATING BACKUP SIZE TRANSFER FREE/TOTAL SPACE 49M/245M

REQUIRED SPACE 60M:

- Backup Device USB memory stick (thumb drive) is available.
- **Device Format** To backed up the data, please delete existing files on the drive first.
- File Format

Exclusive or Avi file is available. Avi file is played with window media player and/or may be played on some DVD players, and exclusive file will be played with our own player. Player is downloaded automatically together with video data.

• From/ To

Set up time that needs to be backed up. FROM (Start time) TO (End time)

• Channel

Only one channel among CH 1 ~ 16 may be burned on to a CD if AVI format is specified.

If **Exclusive** is selected than, all channels can be downloaded at the same time.

• Transfer

Shows the status of the backup data to USB stick . Percentage % during downloading will be shown.

* USB compatibility has been tested successfully for these recommended USB devices.

Lexar JumpDrive128/256MBSanDisk Mini Cruzer128MB, SanDisk Cruzer Micro 256MB

* Procedure for saving data onto a USB device.

- 1. Stop recording. Press "Record" enter Password (0000000) Default
- 2. Insert USB device. Wait until USB symbol appears on screen
- 3. Press "Search" button
- 4. Go to "Backup" Press "Enter"
- 5. Select "File Format" Press "Enter" change to "Exclusive"
- 6. Select Start & Stop times (Press "Enter" to change, use camera buttons) Press "enter"
- 7. Enter channel numbers (cameras 1,2,3 or 4) Select "Save & Exit"
- 8. Select "Calculate Backup size"
- 9. Select "Transfer" after file download
- 10.Exit "Search" mode
- 11.Press "Record" button

"Exclusive" allows all cameras to be selected and recorded.

"AVI" allows single camera only to be selected and recorded.

* PC Playback

- 1. Insert USB device
- 2. Folders & Files on device: Download, BK_Play, Index, Kerberos, KW Client
- 3. Double Click "BK_Play"
- 4. Player opens, click "play" button

NOTE

For system stability, we highly recommend that the recording is turned off during downloading the data

to USB device.

5. CLIENT PROGRAM

5-1. Network Connection

Minimum PC specification (4, 8/16CH)

CPU: 4CH- Pentium III 750MHz over, 8/16CH- Pentium 1.7GHz over.

Graphic Memory : 4CH- 32M over, 8/16CH – 64M over.

IP Viewing

Connection with the DVR is established by inputting the IP address of the DVR (router if on the

WAN) on the Internet Explorer window. If Using the DDNS to connect to the DVR input the registered domain on IE

Downloading ActiveX Control

When DVR connects to the network and the IP address of the DVR is inputted on Internet explorer, a download activeX control will be displayed under address bar on IE. In case that no downloading "Active X control" has been installed previously or a higher version is not on the client PC, then select "Yes". To Install ActiveX. After the install a Log In window will open.

Log In	
ID	admin
Password	******
ОК	Cancel

When Log-In window appears, input the ID & Password. Then, click "OK", which starts the live monitoring.

Default Login Info: ID: admin Password: 00000000

NOTE: If ID & PW is input wrong, the Log-in box appears repeatedly. If you need to close login and exit simply click on **Cancel** to close the software and login window.

Live Monitoring

Client program is optimized on the resolution, 1024 x 768.

Channel Button



Numbers on the right side of the software indicate how many channels are active on Live/Playback modes. When a relevant channel is selected it brings up only that particular image to a full, single image and the button turns green.



Channel Division



Multi-channel division will be done during the monitoring or playback . As seen in picture, 1,4,8,9,16 division is supported. To switch to multi-View screen simple click on any of the 5 options if available. ONLY 16 will have all options.



Termination of Live monitoring

LIVE

Live monitoring will be terminated when "Live Off" button is selected.

Live monitoring will be re-started when "Live On" button. Is selected.

System & Local



Indicates that all the features are completed through the DVR connection

Indicates that features are to be completed from the local (Remote PC) as clients. (most of the time used for local play back and local PC Hard Drive recording)

SYSTEM LOCAL

Recording & Playback



System & Local recording

1) System recording



Step backward / Backward / Play / Pause / Recording /
Stop / Step forward in left order.
One more click during playback makes speed
double .Pause is temporary stop. If user want to play the
video forward during reverse , push the stop key and

then push fast forward button.

To start the recording on the DVR via client PC, press the recording button, when the system icon is on green. Shadow bottom is shown as seen in blue circle. Please check system is on the recording mode.

* Admin only can control 'recording on/off' on the system via network.



NOTE :

To turn **OFF** 'recording', push the red recording button. Shadow button will disappears and system will ask for a password. To stop DVR from recording input Admin password. And, check if the system is out of recording mode.

2) Local recording



To save the live video onto client PC Hard Drive:

- press the recording button when the LOCAL icon is on green.
- When button is shown as seen in blue circle is shadowed, then, recording data is saving on the client HDD.
- * Both admin and user can do local recording.

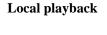


SYSTEM

To check if the DVR is recording you can also check the light on the front left side below the power button. Light must be flashing or solid red.

Flashing red light – motion recording mode.

Solid Red - continues record mode.







O Download	O Live Backup	
L		Cancel

Start Time	7/21/2005	• 4:43:33 PM	•	ОК
End Time	9/27/2005	▼ 11:31:33 AM	÷	Cancel

When "Local" button is activated and Play (\blacktriangleright) button is pushed.

You will be given two different ways of downloading videos.

When "OK" button is pressed:

Set **start & end time** will be displayed. Please check either 'Download' or 'Live Backup'.

- **Download** transmits recorded data from DVR HDD to Client PC .
- Live Backup saves the live image on the client PC.

After clicking "OK" button, available list will be displayed with the time specified.

Star 11:1	t Time 1:02		Selected Time 11:11:02	e End Time 11:31:33
18		9	27	
17	2005	9	22	13:31:36 - 13:38:24 11:11:02 - 11:31:33
16	2005	9	8	15:08:21 - 15:08:23
15	2005	9	6	17:26:39 - 17:26:43
14	2005	9	6	17:26:39 - 17:27:16
13	2005	8	26	10:46:20 - 10:52:20
12	2005	8	25	17:47:27 - 17:49:52
11	2005	8	24	19:42:30 - 19:45:08
10	2005	8	24	19:39:50 - 19:39:53
9	2005	8	2	01:42:00 - 01:42:57
8	2005	8	2	01:42:00 - 01:42:05
7	2005	7	31	10:30:05 - 10:31:57
6	2005	7	23	10:26:57 - 10:28:57
4 5	2005 2005	7	23 16	10:45:29 - 10:45:46 15:07:16 - 15:07:21

 Click on available start time, than click on SELECT.

Next window will display end time

2. Click on **End time** from the list above.

Select the number of the event and push 'start' button.



Then, local playback will be done as above.

Remote playback

SYSTEM LOCAL

It works when system button is in green.

Start Time	8/ 4/2005	▼ 2:15:04 PM	ΞI	ОК
End Time	9/28/2005	▼ 2:09:28 PM	•	Cancel

the window is shown besides. After input "start" and "end" time, push "OK" button.

				Start Cance	-	
13:5			13:51:35	14:09:28		
Star	t Time		Selected Time	End Time	As seen in the image	ge on the left
172	2005	9	28	13:51:35 - 14:09:28	· · · · · · ·	
171	2005	9	28	13:43:15 - 13:51:24		
170	2005	9	28	13:17:58 - 13:43:15		
169	2005	9	28	12:49:15 - 13:17:58		
168	2005	9	28	12:33:23 - 12:49:15		
160	2005	9	28	12:03:03 - 12:03:07 12:03:24 - 12:19:00	above.	
165 166	2005 2005	9 9	28 28	10:51:23 - 10:53:44 12:03:03 - 12:03:07	2. CIICK UIT E	
164	2005	9	28	10:45:04 - 10:50:45	2. Click on E	nd time from the
163	2005	9	28	10:44:15 - 10:44:29	Next window will di	splay end time
162	2005	9	28	10:42:39 - 10:43:25		LLOT.
161	2005	9	28	10:41:37 - 10:42:25	click on SE	IECT
160	2005	9	28	09:44:07 - 10:04:52	1. Click on av	ailable start time, th
159	2005	9	28	09:17:37 - 09:44:07		
158	2005	9	28	08:48:50 - 09:17:37	^	

Select the number and push 'start' button.



Then, remote playback will be done as above.

Setup



Remote setup



				Set E	vent Set
		Camera D	efinition —		
	Name	Covert		Name	Covert
Camera 01	CHI		Camera 09	СН9	
Camera 02	CH2		Camera 10	СН10	
Camera 03	снз	0	Camera 11	CH11	0
Camera 04	CH4	0	Camera 12	CH12	
Camera 05	сня	0	Camera 13	CH13	
Camera 06	CH6		Camera 14	CH14	
Camera 07	CH7		Camera 15	CH15	
Camera 08	снв		Camera 16	СН16	
			Sequence —		
	and the second sec	nce Interval	-	- sec	
	Sequ	ience Mode	1 2	· cameras	

Display Set	Recording Set	System Set		Event Set
Dask configuration	Recording Group	Recordin	9 Priority	
		aration ——		
	Audio Recording 01	off	•	
	Audio Recording 02	Off	*	
	Audio Recording 03	Off	•	
	Audio Recording 04	off	•	
	Repeat Recording	On	•	
	Watermark Embedding	off		
	Recording Resolution	720x240	٠	

Setup menu is composed of 1) Remote Setup 2) Local Setup

3) Firmware Upgrade menu.

Note:

When entering the main system setup and "menu OSD",remote setup doesn't work. If "OSD updating failure" message appears . Priority of the DVR will not allow to make changes unless recording stopped.

When you have select 'Remote Setup' menu,

When in 'Display Set' menu, user can input '*Camera name*' (it can also be done locally from the DVR. To save changed values, user should select 'Save & Exit' for the changes to take place.

Recording Set menu, it has 3 sub-menu.

- 1) Basic Configuration. : you can configure
 - (1)Audio Recording
 - (2) Repeat Recording
 - (3)Watermark Embedding
 - (4) Recording Resolution like local system.

2) Recording Group menu has 4 sub-menu,

- (1)Normal
- (2) Alarm
- (3) Motion
- (4) Schedule like

Local system

3) Recording Priority :User can select the recording priority.

Among 'System Set' menu, PTZ Camera and Schedule Backup, options are unavailable on 4 Channel DVR.

Display S	et	Recording Set	5	ystem Set	Event Set		
	User	Account		P/T/Z Camera Me	odel	Schedule	Backup
	ID		Add	DVR CH No.	Ψ.	Stored	Condition —
User 1	Password	·	Set	Manufacture	¥	9/28/2005 💌	🗖 Alarm
	Confirm	í	Del	P/T/Z Model	Ψ.	9/28/2005 💌	D Motion
	ID		Add	ID		Start Time	End Time —
User 2	Password		Set	Sensor In-		9/28/2005 💌	9/28/2005
	Confirm	·	Del	Sensor 1 None		3:14:52 PM	3:14:52 PM
	ID		Add	Sensor 2 None		Target	Table
User 3	Password	·	Set	Sensor 3 None	• •	×	SET
	Confirm	í	Del	Sensor 4 None	• •	Cam	era
	ID		Add	Alarm Out -			2
User 4	Password	í	Set	Buzzer	+		□ 4 □ 6
	Confirm		Del	Alarm 1 Off	-	D 7	8
	ID		Add	Alarm 2	+		10 12
User 5	Password	í	Set	Alarm 3	-		14
	Confirm		Del	Alarm 4	*	15	16

It is designed for 8,16channel only. Others are the same as local system configuration.

'Event Set' menu *has 1) E-Mail registration 2) E-Mail report 3) Notification out*. The menu is same as local menu tree.

Display Set	Display Set Recording Set			System Set		Even	t Set			
E	mail Reg	istration —			Sende	r Informat	ion —			
EDDY@DIGITAL-QTUM.COM JINI@DIGITAL-QTUM.COM				ID DVR						_
				Domain	DVR	DVR				
					Noti	fication Ou	t			
	-E-mail R	eport ———				Веер	E-m	ail	Ala	rm
Monday	Ŧ	Tuesday	3	Alarm	No	•	No	•	No	8
Wednesday	Ŧ	Thursday	3	Motion	No	-	No	-	No	
Friday	-	Saturday		Parameter		*		-		-
Sunday	Ŧ	Holiday		Video Loss	No	-	No	-	No	-
Time	3	:17:39 PM		Power Loss	No	-	No	-	No	
Im	mediatel	/ -		Operation		Y		٣		,
										_

Local setup



When in 'Local Setup' menu.
1) Draw Mode: User can select between YUV format using Direct X or RGB.
2)Date Format: Select the time/ date format .
3)Save Format: Select the saving file format among JPEG or BMP.

—Draw Mode —	Dat	e Format —	Save Format		
- Nummer	Оуу	yy-mm-dd			
⊙ YUV	⊙ mn	n-dd-yyyy	⊙ JPEG		
O RGB	O dd-mm-yyyy		ОВМР		
		-0SD			
🛛 СН	Ø	Size	Speed Speed		
☑ Frame	Rate		Mode		

- 4)OSD: On Screen Display
 (1) CH1, CH2, ...
 (2) Size : Actual video size. NTSC - 720x240, 360x240, PAL - 720x288, 360x288
 (3)Speed: Playback Speed
- (4)Rate : Frame number per sec.
- (5)Mode: Live(Live monitoring) /

R-Play(Remote play) / L-Play(Local play)



UPGRADE	
New progr	am found!
Upgrade	Cancel

UPGRADE FIRMWARE						
RAMDISK	2072000 /	2850454	72 %			
Firmwa	Firmware data transferring					



Firmware Upgrade

When user selects 'Firmware Upgrade' menu, if higher version exits in C:\KWClient\Upgrade fold, 'New Program Found!' message will be displayed.

Upgrade should be stored in C:\KWClient\Upgrade folder

'New **Program Not Found'** message will be displayed.

If exists press **'Upgrade'** button to upgrade firmware or push **'Cancel'** button to cancel the process. If canceled 'Firmware Upgrade Fail' message will be displayed. *Note : For system stability, please "off" the system Recording.*

> When firmware Upgrade is done successfully, 'Firmware Upgrade success!' message will be displayed.

Download, Image Save,

Two-Way Audio, Stop, Connect



Download - to download video from DVR to Remote PC Hard Drive.



When 'download' button is pushed, It is for transmitting the recorded data on to a client PC HD.

User select 'Start time' and 'End time' to download and push 'OK' button.

Start Time	8/ 4/2005	• 2:15:04 PM	•	ОК
End Time	9/28/2005	▼ 3:28:00 PM	÷	Cancel

Select a number from the 'Start Time' list

161	2005	9	28	10:41:37 - 10:42:25	
162	2005	9	28	10:42:39 - 10:43:25	
163	2005	9	28	10:44:15 - 10:44:29	
164	2005	9	28	10:45:04 - 10:50:45	
165	2005	9	28	10:51:23 - 10:53:44	
166	2005	9	28	12:03:03 - 12:03:07	
167	2005	9	28	12:03:24 - 12:19:00	
168	2005	9	28	12:33:23 - 12:49:15	
169	2005	9 28		12:49:15 - 13:17:58	
170	2005	9 28		13:17:58 - 13:43:15	
171	2005	9 28		13:43:15 - 13:51:24	
172	2005	9	28	13:51:35 - 14:09:28	
173	2005	9	28	14:09:28 - 14:36:18	
174	2005	9	28	14:36:18 - 15:03:15	
175	2005	9	28	15:03:15 - 15:28:00	
Start Time			Selected Time	End Time	
15:03:15			15:03:16	15:28:00	
				\sim	

Select the number among list for 'End Time'.

Download -	End Time				
1	2005	9	28	15:03:15 -	15:28:00
Star	t Time	c	elected Time		End Time
	3:16		15:27:59		15:28:00
1					
				End	Cancel



Process bar will be shown bellow that will indicate downloading status. Must wait until downloading is completed.

111	HIII	Þ	AL	LOC	SYSTEM
A	1 00				

Review downloaded file upon completion of the download push 'Local' button, Icon will turn green color.

Press play(►) button.

Start Time	2003-11-	18 👻	오후	8:36:36 🔶	ок
End Time	2004-11-	17 👱	오후	8:36:36	Cance
O Download		O Liv	e Back	up	Advance

Select 'Start Time' & 'End Time'

select check (V) 'Download' to view downloaded file.

tart Time :	13:13:32			End Time : 13:46:53
5	2005	2	7	13:46:53 - 13:46:53
4	2005	2	7	13:13:32 - 13:46:53
3	2005	2	7	13:13:32 - 13:13:32
2	2005	2	i	16:52:34 - 16:59:09
1	2005	2	1	16:52:34 - 16:59:09

Download list will be shown.

Select the number which you want to play.



Local Play (from downloaded files) will be displayed as shown above.

Image Save



Saving Images from Video. Two (2) different formats JPEG or BMP to choose from. The file will be stored in C:\KWClient\Save .

Stop



It is for stopping Downloading and Playback.

Connect



Re-connecting when access to live view or DVR failes.

Pan/Tile, Zoom/Focus, OSD





1) Pan / Tilt

Using arrow key, controls the Pan/Tilt (4 channel doesn't support P/T/Z control) 2) Zoom / Focus

- Using arrow key, controls Zoom, Focus (4channel doesn't support P/T/Z control)
- 3) OSD Whether displays or not on OSD during live / playback

Log / Event / Info / Status

By Clicking on the tabs the relevant information will show below. Log, Event, Info, Status.

Log Event Info Status	
System Message	
Log Event Info Status	
Close	

Event Clear



The relevant OSD turns to green color when DVR has an event like Alarm, Motion, Video loss.



Reset for event button (event clear)

Time/Timer

11-17-2004 It shows the client PC timer when monitoring is working.

4:37:54 On the other hand, it shows the time the recording data belongs to during playback.

The timer format is according to date format specified on the "local Setup".

Exit



Use to Exit software.

 $\bigcirc \& \land$

- Q: The message "Can't display the page" is shown and failed to connect to DVR, though input the IP address or domain name on the internet explorer window.
- A: DVR is out of work or a problem on the network connection. Please check the DVR if it is working properly and , if it does, check the connections both from DVR and PC .
 - ➢ Q: Can't download the ActiveX Control.
- A: It does if "Windows XP Service Pack 2" is installed on the PC. Remove "service pack 2" on the menu, "program add & removal" on the control panel. Or, refer to Appendix 3.
 - ▶ Q: The client program is terminated with the message "Unsupported OS version !"
- A: The client program is working on the Window XP, 2000. Doesn't support Win.98, 98SE, ME.
 - ➢ Q : Log-In box repeats appearing
- A: It appears repeatedly when Client ID & Password is input wrong. Please check the exact ID & PW memorized on the DVR.
 - ▶ .Q : Can't change "Draw mode" on the menu, Local setup.
- A: It doesn't allow the change during the live monitoring and playback. If it required, please stop the live monitoring or playback. Then, you can change the "Draw mode".
 - \triangleright Q: Where is the saved file located ?
- A: It locates at "C:\KWClient\Saved". The file can be played with Image viewer.
 - \triangleright Q : There is no response after pushing the OSD button.
- A: OSD is showing several status during playback. If the detail items is not specified on the "Local Setup", there is no response even if pushing the OSD button during playback. Try it after selecting required OSD menu on the Local Set-up.
- - > Q : I can't see the file made back up form a DVR on the monitor.
- A : Please check whether you have a Codec S/W or not. If you don't have, you have to install it in your PC.

- > Q : When I downloaded the image as AVI on to my memory stick, it plays back ok, but no date & time
- A : AVI (window media player) file is supplied by MS. So, we can't change it. To supplement this, we have added "exclusive" file backup on current version.
 - > Q : I can see the display web layout on the monitor but no picture.
- A1 : Please check your PC specification needs to be Pentium III 750MHz and Graphic Memory 32M Over.
- A2 : Please, go to control panel -> internet options -> security -> select Customer Level.
- Go to ActiveX controls and plug-ins -> Automatic prompting for ActiveX Controls => Disable" Go to Download unsigned ActiveX controls => Prompt"
- Go to Miscellaneous -> Allow script-initiated windows without size or position constraints" => Enable"

Appendix 2

SENSOR INSTALLATION

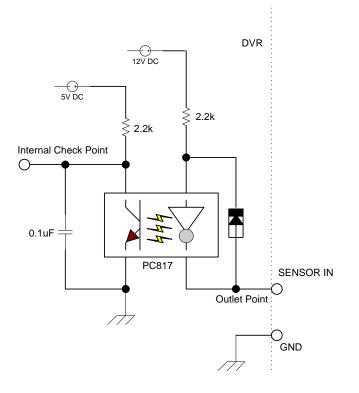
1. Components

1) External Sensor : 1 (You should prepare one set)

2) DVR System : 1

2. Inner Circuit for Sensor Input

The inner circuit of Mpeg 4 DVR is as follows,



PC817 : Photo Coupler The Specification of PC817

InputForward currentIF50*1Peak forward currentI FM1Reverse voltageV R6Power dissipationP70Collector-emitter voltageV CEO35Emitter-collector voltageV ECO6Collector currentIC50Collector power dissipationP C150	mA A
Input Reverse voltage V R 6 Power dissipation P 70 70 Collector-emitter voltage V CEO 35 5 Emitter-collector voltage V ECO 6 6 Collector current IC 50 5	
Reverse voltage V R 6 Power dissipation P 70 Collector-emitter voltage V CEO 35 Emitter-collector voltage V ECO 6 Collector current IC 50	17
Output Collector-emitter voltage V CEO 35 Emitter-collector voltage V ECO 6 Collector current IC 50	V
Output Emitter-collector voltage V ECO 6 Collector current IC 50	mW
Output Collector current IC 50	V
Collector current IC 50	V
Collector power dissipation B.C. 150	mA
Collector power dissipation P C 150	mW
Total power dissipation P tot 200	mW
*2Isolation voltage V iso 5 000	V rms
Operating temperature T opr -30 to + 100	°C
Storage temperature T stg -55 to + 125	°C
*3Soldering temperature T sol 260	°C

*1 Pulse width<=100 s, Duty ratio : 0.001 *2 40 to 60% RH, AC for 1 minute

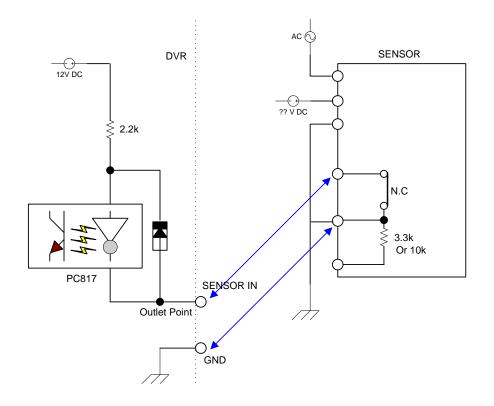
*3 For 10 seconds

Electro-optical Characteristics

	Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
	Forward vo	oltage	V F	IF = 20mA	-	1.2	1.4	V
Input	Peak forward voltage		V FM	IFM = 0.5A	-	-	3.0	V
mput	Reverse current		IR	V R =4V	-	-	10	μΑ
	Terminal capacitance		Ct	V = 0, $f = 1$ kHz	-	30	250	pF
Output	Collector dark current		ICEO	V CE = 20V	-	-	10 -7	А
	*4Current transfer ratio		CTR	IF = 5mA, V CE = 5V	50	-	600	%
	Collector-emitter saturation voltage		V CE(sat)	IF = 20mA, I C = 1mA	-	0.1	0.2	V
	Isolation resistance		R ISO	DC500V, 40 to 60% RH	5 x 1010	1011	-	Ω
Transfer charac-	Floating capacitance		Cf	V = 0, f = 1MHz	-	0.6	1.0	pF
teristics	Cut-off free	quency	fc	V CE = 5V, I C = 2mA, R L = 100 W, - 3dB	-	80	-	kHz
	Response	Rise time	tr	V CE = 2V, I C =	-	4	18	μs
	time	Fall time	tf	2mA, R L = 100 Ω	-	3	18	μs

1. SENSOR Install Processing

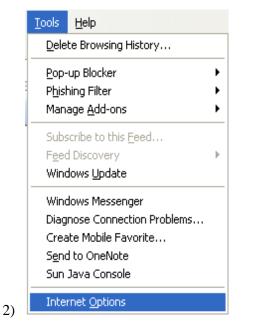
Please refer the below block diagram.

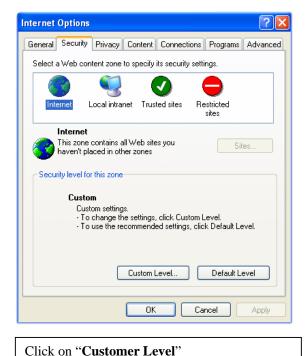


Appendix 3

INSTALLING PRODIGY WEB CLIENT ON WINDOW XP SERVICE PACK 2.

1) Open IE > Tools > Internet Options > Click on Security Tab >





Security Settings ?× Settings: 🔘 Enable Allow script-initiated windows without size or position constr 🔘 Disable Enable Allow Web pages to use restricted protocols for active cont Disable 🔘 Enable Prompt Display mixed content 🔘 Disable C Enable Prompt Don't prompt for client certificate selection when no certificate A R.L.L. < > Reset custom settings Reset to: Medium ~ Reset OK Cancel

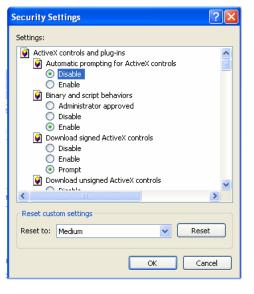
Allow script-initiated windows without Size or position constraints"->

• Enable.

Security Settings
Settings:
Disable Enable Download signed ActiveX controls Disable
Enable Prompt
Download unsigned ActiveX controls Disable Enable
Prompt Initialize and script ActiveX controls not marked as safe O Disable Enable
Reset custom settings
Reset to: Medium Reset
OK Cancel

Select " Download unsigned Active X controls"

• PROMPT



Select "Automatic Prompting for Active X controls"

• Disable

Click OK on all Windows after setting had been inputted.

2) Type the IP address of the DVR to make a Connection

Q turn Inc Microsoft Internet Explorer File Edit View Favorites Tools Help Back · O · N O · N O · Search · Favorites · O · N O	Click here as described Select " Always Allow Pop- ups from this site"
A MURICIO, Microsoft Informed Liplices A second data and	Select "Install Active X Control " Click " To help protect security, Internet Explorer stopped this site from installing an Active X control on your computer. Click here for options"
Internet Explorer - Security Warning The publisher could not be verified. Are you sure you want to install this software? Name: kwclient.cab Publisher: Unknown Publisher Install Don't Install This file does not have a valid digital signature that verifies its publisher. You should only install software from publishers you trust. How can I decide what software to install?	Select " Install " and then 'Log-In' box will be shown.

If a password has not been changed for admin or a new one created you may use the default.

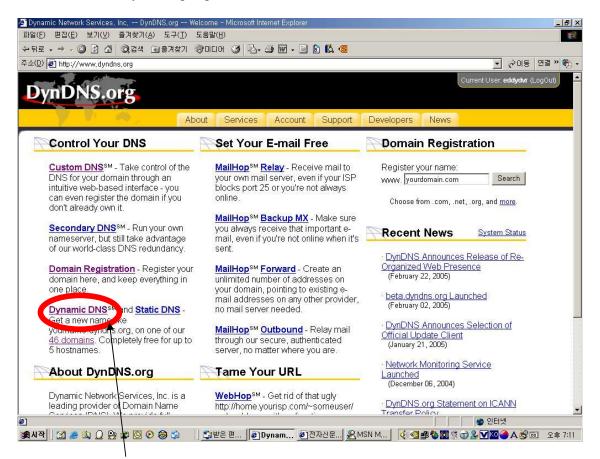
USER NAME: admin

Password: 00000000

Appendix 4

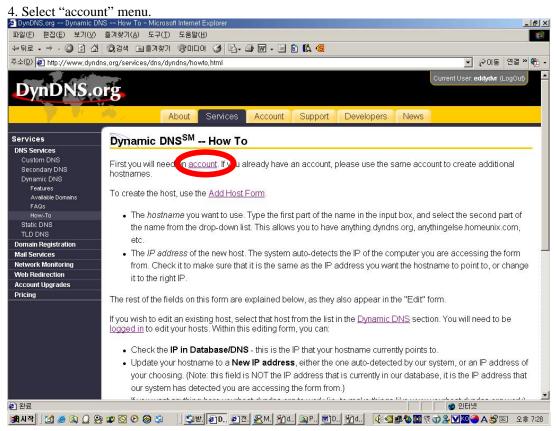
DYNAMIC IP (Supporting DDNS Server)

1. visit <u>www.dyndns.org</u> to get the DDNS user ID & PW as well as domain name.



- 2. Click "Dynamic DNS" menu .
- 3. Select "How To" menu.





- 5. mark **v** "I have read and agree to the Acceptable Use Policy above"
- 6. Input "Username" & "Password".

(for exam. Username : eddydvr, PW: prodigydvr)

DynDNS.org Account C	Create Account - Microsoft Internet Explorer	×
파일(<u>F</u>) 편집(<u>E</u>) 보기(<u>V</u>)	즐겨찾기(<u>A</u>) 도구(<u>I</u>) 도움말(<u>I</u>)	
수뒤로 🗸 🤿 🖉 🐼	🔍 검색 🖬 즐겨찾기 🛞 미디어 🧭 💁 🗃 🚽 📄 🔞 📫 🧐	
주소(D) 🛃 http://www.dyndn:	s,org/account/create.html 🔽 🔗 이동 연결 » 🕏	-
DynDNS.o	Current User: edidydwr (LogOut)	•
	About Services Account Support Developers News	
My Account My Services Account Settings Billing	Create Account Please complete the form below to create your account. You will receive an e-mail containing instructions to activate your account. If you do not follow these directions within 48 hours, you will need to recreate your account. It is strongly recommended that you visit this page securely. You are not currently visiting this page securely. Acceptable Use Policy Policy Last Modified: May 4, 2004 1. ACKNOWLEDGMENT AND ACCEPTANCE OF TERMS OF SERVICE All services provided by Dynamic Network Services, Inc. ("DynDNS") are provided to you (the "Member") under the Terms and Conditions set forth in this Acceptable Use Policy ("MUP") and any other operating rules and policies set forth by DynDNS. The AUP comprises I have read and agree to the Acceptable Use Policy above: Image: Username	
	Username eddydwr	
	Your username will be used to login to your account and make changes.	¥
@]	이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	
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Check if account registration is done successfully.

🕈 DynDNS,org Dynamic DNS	Add Host - Microsoft Internet Explorer			_8>
	즐겨찾기(<u>A</u>) 도구(<u>T</u>) 도움말(<u>H</u>)			
수뒤로 🕥 🖄 🖄	Q)검색 🖻 즐겨찾기 ()) 미디어 🎯 🖪 - 🎒 🕅 ·	· 🖻 🕅 🗱 🍯		
주소(D) 🙋 http://www.dyndns.	.org/account/services/hosts/dyndns/add.html			💌 🔗 이동 - 연결 » 📆
- T. Although				Current User: eddydvr (LogOut)
DynDNS.or	rg.			
	0		· ·	
	About Services Acco	ount Support De	velopers New	S
My Account	New Dynamic DNS SM Host			
My Services	New Dynamic DNS Host			
Account Upgrades MailHop Outbound	Hostname:			
SLA	Hostname:	eddydvr	dyndns.org	×
My Zones Add Zone Services	IP Address:	220.76.93.153		
My Hosts	Enable Wildcard:			
Add Host Services Dynamic DNS	Enable Wildcard.			
Static DNS	Mail Exchanger (optional):		🗆 🗆 Backup M	1X?
WebHop MyWebHop				
Network Monitoring Account Settings				Add Host Reset Form
Billing				
		namic Network Services, Inc. Ise Policy Trademark Notices		
	Thracy Folloy Proceptable o	ser oney I material reduce.		
<u>)</u> 완료				- 🖉 인터넷
🟦 시작 🔰 🚮 🥭 🔍 💭 🤮 🕯	🕿 🖸 📀 🎯 🏐 🔤 🚰 🖉 🖉 🖉	QF @C 20d 20d 20d	📢 🚳 🕮 🍪 🚳 🔅	Ĵ 🏖 🗹 🎑 🤩 🕘 A 😂 📼 🛛 오幸 8:30

DynDNS org Dynamic	: DNS How To - Microsoft Internet Explorer	- 14
파일(<u>F</u>) 편집(<u>E</u>) 보기(\		
- 뒤로 🗸 🤿 🗸 🙆	ය් 🕲 අප් 🖬 මුළුදු වැටග 🧭 🛂 - அ 🗹 - 🗐 🕲 🛍 🧐	
소(D) 🛃 http://www.dy	ndns.org/services/dns/dyndns/howto.html 🗾 🔗 미동 연결 :	» 🧯
	Current User. eddydwr (LogOut	5
DvnDNS.	org	
	About Services Account Support Developers News	
ervices	Dynamic DNS SM How To	_
NS Services Custom DNS		
Secondary DNS	First you will need an account. If you already have an account, please use the same account to create additional	
Dynamic DNS	hostnames.	
Features	To create the host, use the Add Host Form.	
Available Domains	To create the host, use the <u>Add Host Form</u> .	
FAQs	The boots are usually to use. Time the first part of the same in the input hav, and called the second part of	
How-To Static DNS	The hostname you want to use. Type the first part of the name in the input box, and select the second part of	
TLD DNS	the name from the drop-down list. This allows you to have anything.dyndns.org, anythingelse.homeunix.com,	
omain Registration	etc.	
ail Services	The IP address of the new host. The system auto-detects the IP of the computer you are accessing the form	
etwork Monitoring	from. Check it to make sure that it is the same as the IP address you want the hostname to point to, or chang	ie
/eb Redirection	it to the right IP.	č
ccount Upgrades		
ricing	The rest of the fields on this form are explained below, as they also appear in the "Edit" form.	
	If you wish to edit an existing host, select that host from the list in the Dynamic DNS section. You will need to be	
	loga di no edit your hosts. Within this editing form, you can:	
	 Check the IP in Database/DNS - this is the IP that your hostname currently points to. 	
	Update your hostname to a New IP address, either the one auto-detected by our system, or an IP address of	of
	your choosing. (Note: this field is NOT the IP address that is currently in our database, it is the IP address that	11
	our system has detected you are accessing the form from.)	
완료	📕 Konserveren kannen kleinen hannen er sonder ander annen kannen die Kannen beiten met Bereiten sonder ander and ander ander ander and ander and	•
		\$

- 7. Select "Add Host Form" to create the domain name.
- Input "Hostname". Hostname is the same one as "username" (for exam: eddydvr)
 You should select "dyndns.org", which is limited on our system.
- 3) Current dynamic IP will be shown below
- 4) After checking step 1 and 3, select "Add Host"
- 5) After registering hostname, check the ping status(ping -t eddydvr.dyndns.org)

9. To connect DVR system, the followings-XDSL ID & PW / DDNS ID & PW/ Registered Domain- have to be input on the "Network set" menu .

NETWORK SET

USE DYNAMIC IP: YES XDSL USER ID : XDSL PASSWORD : DDNS USER ID : DDNS PASSWORD : REGISTERED DOMAIN: SAVE AND EXIT

Appendix 5

SETUP FOR DVR PORT/ WEB SERVER PORT USING IP SHARING ROUTER

NETWORK SI	ET
►USE DYNAMIC	IP: NO
IP ADDRESS	:000.000.000
GATEWAY	:000.000.000.000
NETMASK	:000.000.000.000
DNS SERVER	:000.000.000.00
DVR PORT	2000
WEBSERVER I	PORT 2001
SAVE AND EX	IT

1) If using a Router, "Use Dynamic IP" should be set on " No"

- DVR Port : Port number to connect network client program on remote PC. When it needs to be changed, number which is not overlapped should be input(2001~65535)

- Web Server Port : Port number to download network client program to remote PC. When it needs to be changed, number which is not overlapped should be input(2001~65535)

2) Setup "virtual server" on IP sharing Router

It is for setting virtual server to forward IP which is allotted to DVR.

For exam.)

DVR 1 IP: 192.168.0.11, DVR Port :2500, Web Server Port : 2501

DVR 2 IP: 192.168.0.12, DVR Port : 2600, Web Server Port: 2601

If two sets of DVR is configured above, the virtual server on IP sharing router is as follows.

(1) PC Server Name : DVR1-1(192.168.0.11)

Protocol : TCP, Internal Port : 2500, External Port : 2500

PC Server Name : DVR1-2(192.168.0.11)

Protocol : TCP, Internal Port : 2501, External Port : 2501

- (2) PC Server Name : DVR2-1(192.168.0.12)
 Protocol : TCP, Internal Port : 2600, External Port : 2600
 PC Server Name : DVR2-2(192.168.0.12)
 Protocol : TCP, Internal Port : 2601, External Port : 2601
 * For more detail, please refer to relevant IP sharing manual .
- (3) 'DDNS' Setup on IP sharing router

DDNS configuration is no needed in case of fixed IP.

(4) Address and port number input on the internet explorer window.

Please input the following format, <u>http://address:web server port</u>. If the system is on the dynamic IP environments and the address configured (3) is abc.dyndns.org and the same address and port is designated like (2),

To connect DVR1, http://abc.dyndns.org:2501, to connect DVR2, http://abc.dyndns.org:2601.

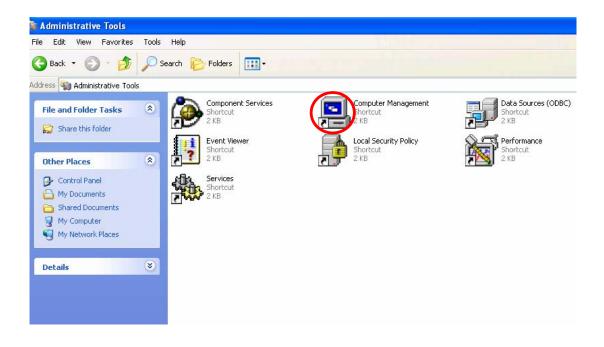
Appendix 6

MAKING PARTITION ON EXTERNAL USB HDD

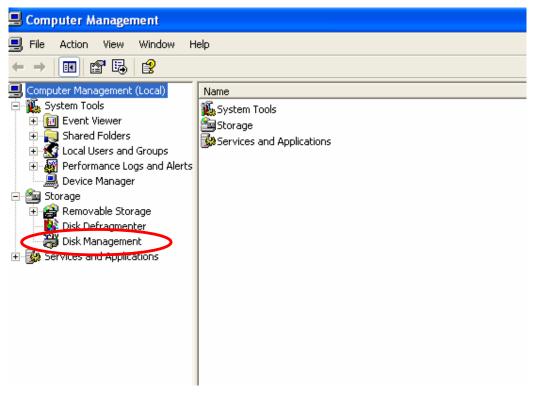
To back up to USB HDD, the USB HDD should be formatted first on PC. We are supporting FAT32 file system of which maximum size is 30GB at one partition. Please refer to the following procedure to make a partition and format on PC.

💕 Control Panel File Edit View Favorites Tools Help -🕒 Back 🔹 🕥 - 🎓 🔎 Search 🌔 Folders 🏢 🗸 Address 🔂 Control Panel 💌 🛃 Go C P X 2 Ġ, -Control Panel Add or Remov.. Date and Time Accessibility Add Hardwar Options ministrati Automatic Updates Display 🥵 Switch to Category View ٢ 9 d N and a 3 Q \$ See Also Folder Options Fonts Mouse Game Controllers Internet Keyboard Network Connections Nindows Update Options ()) Help and Support -3 P ٠ Printers and Faxes twork Setup Wizard Phone and Modem ... Power Options Regional and Scanners and Cameras Scheduled Tasks Language 3 Ø, ۲ System Security Center Sounds and Audio Devices Taskbar and User Accounts Start Menu Windows Firewall Ľ ER Wireless Network Set Portable Media Devices Wireless Link 🦺 start 🔰 👪 🥟 🞯 🕖 🔾 My Computer 💁 Control Panel Maninistrative Tools EN 및 및 이 등 👬 😆 오후 6:02

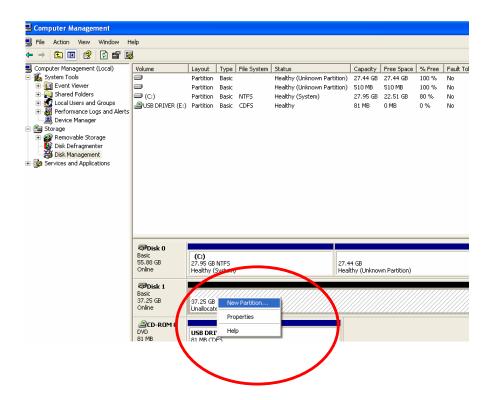
1. Select Control panel-> administrative Tools.



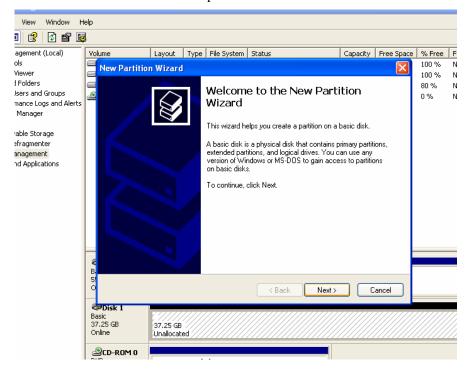
3. Select "Disk Management".



4. Click right mouse button and select "New Partition".



5. Follow "New Partition Wizard" procedure as below.



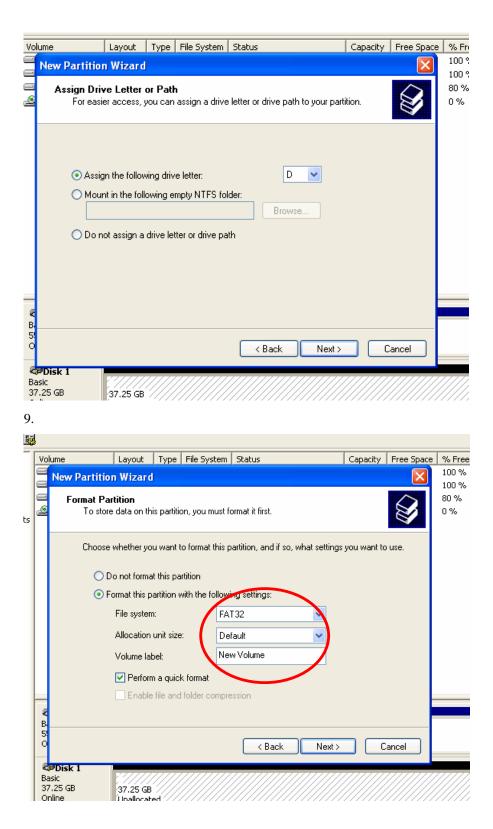
6.

wot	He	lp													
ť	5														
d)		Volu	me		Lay	yout	Туре	File Syste	em	Status		Capacity	Free Space	% Free	Fa
			New P	artiti	on W	'izar d							X	100 %	No
			_	_		_								100 %	No
ps	ľ		Sel			n Typ ree tur		artitions: pri		y, extended, and logical	ı		\mathbf{Q}	80 % 0 %	No No
d Aler	ts	-		THORE	are an	ice gp	cs or pe	nddona, pri	nar	y, extended, and logical			S I	0 /0	140
				Color											
			1	Select	ane pa	aruuon	you wa	nt to create	C						
			$\boldsymbol{\boldsymbol{\varsigma}}$	۲	Primar	y partiti	ion	ノ							
				0	Exten	ded pa	rtition								
					Logica	al drive									
				⊂ Des	criptio	n —									
					1.1		n is a v	olume you	crea	ate using free space on	a basic	disk.			
				- Wi	ndows	and ot	her ope	rating syste	ems	can start from a primary	partitio	n. You can			
					ate up tition.	i to rour	primary .	partitions	ora	hree primary partitions ar	na an e:	xtended			
		_													
		8													
		В. 5!													
		ŏ								< Back	Next >		ancel		
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		37. Onl	25 GB			.25 GB									11.
		On	i ie		, Un	allocate	ed 7/7	//////	//	///////////////////////////////////////	////	[[[[[]]]]]	///////////////////////////////////////	//////	777

7. Maximum is 30GB at FAT32 file format.

Vo	lume	Layout	Туре	File System	Status	Capacity	Free Space	% Free	
	New Partitio	n Wizard	J					100 % 100 %	
	Specify Pa Choose			is between th	e maximum and minimum sizes			100 % 80 % 0 %	
					221.12				
			-	ibytes (MB):	38147				
	Minimur	n disk spac	e in MB:		8				
	Partition	i size in MB	:		30000				
B 5 0									
					< Back Next >		Cancel		
Ва 37	PDisk 1 asic 7.25 GB nline	37.25 GB Unallocat							

8.



10. At this stage, New Partition has been made.

Volume	Layout Type	File System Status	Capacity	Free Space	% Free
🗏 New Partitio	n Wizard				100 %
		Completing the New Partis Wizard You have successfully completed the New P You selected the following settings: Partition type: Primary partition Disk selected: Disk 1 Partition size: 30000 MB Drive letter or path: D: File system: FAT32 Allocation unit size: Default		rd.	100 % 80 % 0 %
Ф. В. 50		Volume label: New Volume Duick format: Yes To close this wizard, click Finish. < Back Finish		ancel	
CPDisk 1					
Basic 37,25 GB	37.25 GB				

11. Check New partition was created correctly. (Format will be executed automatically)

System Tools Partition Basic Healthy (Unknown Partition) 27.44 GB 100 % No 0% Shared Folders Partition Basic Healthy (Unknown Partition) 27.95 GB 22.16 B 0.0 % No 0% C1 Event Viewer Partition Basic NTFS Healthy (Unknown Partition) 27.95 GB 22.16 B 0.0 % No 0% M Performance Logs and Alerts Partition Basic FAT32 Healthy (Usknown Partition) 29.28 GB 100 % No 0% Storage Storage Storage Basic CDFS Healthy 29.28 GB 100 % No 0% Storage Bix Datagement Disk Defragmenter Disk Defragmenter 0 MB 0 % No 0% Disk Defragmenter Disk Defragmenter 27.95 GB 27.95 GB 27.95 GB 27.95 GB 27.95 GB 100 % No 0% Basic Storage Storage Storage 100 % No 0% No 0% Basic Storage Disk Defragmenter 10 MB 10 MB	Computer Management (Local)	Volume	Layout	Туре	File System	Status	Capacity	Free Space	% Free	Fault Tolerance	Overhead
 Shared Folders C:) Partition Basic NTFS Healthy (System) C:) Partition Basic FAT32 Healthy Device Manager Storage Bearovable Storage Disk Degreenter Disk Magement Services and Applications 		•	Partition	Basic		Healthy (Unknown Partition)	27.44 GB	27.44 GB	100 %	No	0%
Color Color <td< td=""><td></td><td></td><td>Partition</td><td>Basic</td><td></td><td>Healthy (Unknown Partition)</td><td>510 MB</td><td>510 MB</td><td>100 %</td><td>No</td><td>0%</td></td<>			Partition	Basic		Healthy (Unknown Partition)	510 MB	510 MB	100 %	No	0%
Performance Logs and Alers Interview Manager Device Manager OWSB DRIVER (E:) Partition Basic CDFS Healthy 81 MB Disk Data For space Disk Romenter Disk Managerent Stronge Disk Managerent 27,95 GB Marco Disk Basic 27,95 GB Marco Disk 1 Basic Publisk 1 New YOLUME (Do) Publisk 1 Basic Publisk 2 Publisk 1 Publisk 1 Basic Publisk 2 Publisk 1 Publisk 1 Basic Publisk 2 Publisk 1 Publisk 1 Basic Publisk 1 Basic Publisk 1 Publisk 1 Publisk 1 Publisk		🖃 (C:)	Partition	Basic	NTES	Healthy (System)	27.95 GB	22.51 GB	80 %	No	0%
Storage Disk Defragmenter Disk Defragmenter Disk Maggement Services and Applications Image: Color C		NEW VOLUME	Partition	Basic	FAT32	Healthy	29.28 GB	29.28 GB	100 %	No	0%
Strage Strage Property Strage Provide Storage Disk Defragmenter Disk Managementi Services and Applications 27,95 GP Mrs - Back 27,95 GP Mrs - Disk Desk Desk Desk Desk Desk Desk Desk De	Performance Logs and Alerts	BUSB DRIVER (E:)	Partition	Basic	CDFS	Healthy	81 MB	0 MB	0%	No	0%
Image: Services and Applications Image											
Bisk Derivagemeter Disk Management Services and Applications Basic 55.88 G8 C1) Basic 55.88 G8 Online Pisk 1 NEW VOLUME (Do.) 27.96 G8 27.29 G6 FAT32 7.96 G8	Bernousble Storage										
Basic 1000 (C) Basic 27,95 GB (Mr.5) 27,95 GB (Mr.5) 27,44 GB Basic 27,95 GB (Mr.5) Healthy (Unknown Partition Healthy (Disk not (System)) Basic 37,25 GB NEW VOLUME (D)) 29,29 GB FAT32 7,96 GB	Disk Defragmenter										
Services and Applications Basic (C) Basic 27,95 GBL 15 S5.88 GB 27,95 GBL 15 Poisk 1 New VOLUME (D) Basic 29,29 GB FAT32	Disk Management										
GPDisk 0 Basic 55:88 GB 27.95 GB Jm 5 Hashing (System) Healthry (Unknown Partition Basic NEW VOLUME (Dr.) 37.25 GB PArtition											
55.88 GB 27.95 GBJ:nr5 Online 27.44 GB 27.44 GB 510 MB Healthy (Unknown Partition President) Basic 37.25 GB 29.29 GB FAT32 7.96 GB											
CPDisk 1 NEW VOLUME (D:) 37.25 GB 29.29 GB FA132 7.96 GB											
Basic NEW VOLUME (D:) 37.25 GB 29.29 GB FAT32 7.96 GB		Basic 55.88 GB	27.95 GB	System)				vn Partition)			10 MB Jealthy (Uni
37.25 GB 29.29 GB FAT32 7.96 GB		Basic 55.88 GB Online	27.95 GB	System)				vn Partition			
		Basic 55.88 GB Online Coline	27.95 GBI Healtiny (S	öystem) .UME (vn Partition			
		Basic 55,88 GB Online Poisk 1 Basic 37,25 GB	27.95 GB Healtiny (S NEW VOL 29.29 GB	öystem) .UME (7.96 GB			

12. Check New Partition was created correctly

	NEW VOLUME (D:) F		
rage	General AutoPlay 1	Tools Hardware Sharing	
	See NEW	/ VOLUME	
	Type: Local	Disk	
	File system: FAT3	2	
	Used space:	16,384 bytes	16.0 KB
	📕 Free space:	31,438,045,184 bytes	29.2 GB
	Capacity:	31,438,061,568 bytes	29.2 GB
		Drive D	Disk Cleanup

Appendix 7

SPECIFICATION

Model -			2.	MF	EG-4 Digital Video Recor	der			
	MO	aei	2)	4CH	8CH	16CH			
√ideo	Camera Inp	out(Ntsc, P	al)	4	8	16			
nueu	Output		2	1BNC, 1S-Video	1 BNC, 1 S-V	Video, 1 VGA			
Audio	Audio Inpu	t,	2	1 RCA	4 B	CA			
1000	Output		2)		1 RCA				
Ser	nsor in (No,1	Vc)/ Alarm	Out		4/1				
C	perating Sy	stem	2)	Embeded Linux OS					
	Speed		2)	120fps	240fps	480fps			
Display	Resolution	(Pixel)	20		720*480(NTSC) / 720*588(PAL)			
	Split Scree	n	20	1,4	1,4,8 SEQ	1, 4, 8, 16 SEQ			
	Compressi	on	2)						
	Resolution(Pixel)		720*240, 3	360*240(NTSC) / 720*288, 360 [.]	*288(PAL)				
	Picture Qua	ality	2)		3 Steps (High, Middle, Low)				
	Mode		2)	N	ormal, Motion, Alarm, Schedu	le			
	Priority		2)	Alarn	n -> Motion -> Schedule -> N	ormal			
Recording	÷	Total	NTSC/PAL	120fps(360*240), 8	60fps(720*240) / 100fps(360*28	88), 50fps(720*288)			
			S	30fps(360*240)	15fps(360*240)	7.5fps(360*240)			
	Speed	Each	NTSC	15fps(720*240)	7.5fps(720*240)	3.75fps(720*240)			
		Chanel	DAL	25fps(360*288)	12.5fps(360*288)	6.25fps(360*288)			
			PAL	12.5fps(720*288)	6.25fps(720*288)	3.125fps(720*288)			
	Water Mark	ing & Scri	ambling		Our Own Algorithm				
	Display		2)	1,4	1, 4, 8	1, 4, 8, 16			
	Search Mo	de	2)		Date & Time, Calendar				
Playback	Speed		2)	Normal, REW & FF(Re	ecorded Speed *2, *4, *16), Fi	rame to Frame, Pause			
	Device		2)		Internal HDD				
	Still Image	Capture &	Save	JPEG Compressio	n or AVI Fromat & USB I/F De	vice(Memory Stick)			
	Network Int	terface	2		Ethernet				
	Protocol		2)	TCP/IP	, SMTP, HTTP, DHCP, PPPOE	E(ADSL)			
dational.	Serial Com	municaton	6 2	No	RS-232 1Each,	RS-485 1Each			
Network	Application		2	Wind	dows 2000 / XP(PC Client Sys	stem)			
	Web Brows	ser	2)	Internet Exp	lorer 5.0 Higher(DVRs Contorl	or Viewing)			
	Event Tran	sport	3	Wher	n Event Occur, Set send to e-	-mail.			
	Interface		2		USB 2.0				
Back Up	Backup De	vice	2)	External HDD, CD/DVD-RW, Network, Memory Stick, Internal CD/DVD-RW					
			2)		Each Control / Channel				
	Motion Det	ection	2-	Ser	isitivity : 3 Steps for each cha	nnel			
			2-	Area : Individually Programmable motion detection area for each camera					
Control	Alarm Hold	Time	2)		5~240 SEC				
	Event Log		2)	Up to 256 events(Alarm, Motion, Video&Power Loss, Power&Record On/Off)					
	Remote Co	ntroller	2)	IR Remote Control					
	Pan/Tilt Ca	AGUZIAUN	5.V	No	Control From F	S485 Interface			
	HDD		50°		Supports Max. * 2HDD				
	Power Sou	rce	in the second se		100~240V AC, 50~60HZ				
	Power Con	2.2.2	86						
		12/10/10/10/10/10/10		No. 10					
Sale and	Operating 7		re i		5~40℃(41~104F)	20			
Others	Relative Hu	1			Maxium 80% Non-Considering	4			
	Weight		Net		7.0Kg				
			s(Box)		7.5Kg				
	Dimension		Net		450(W)*370(D)*90(H)mm				
		Gros	s(Box)		500(W)*460(D)*190(H)mm				

*Design and product specifications subject to change without notice