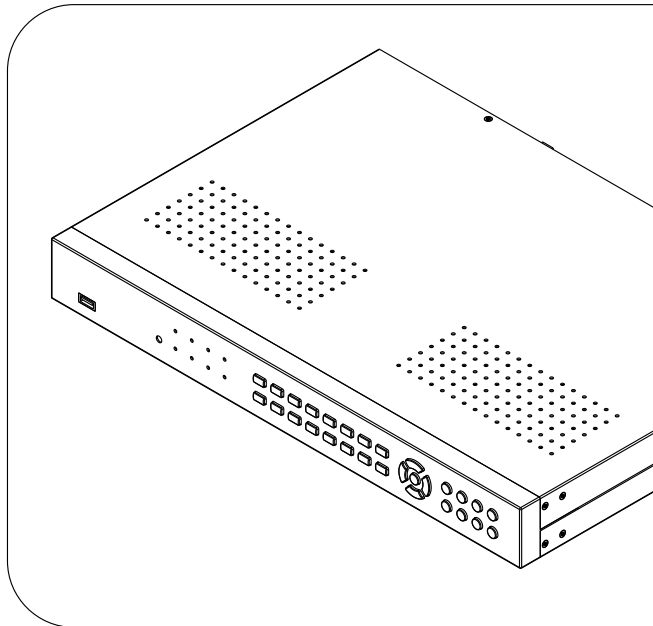
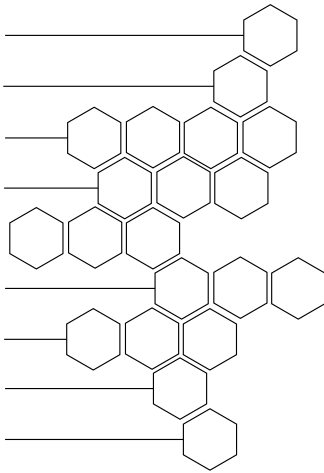


# 16CH STAND ALONE

---

## MANUAL



2008 AUG. Ver.4.0



# CONTENT

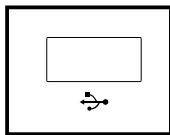
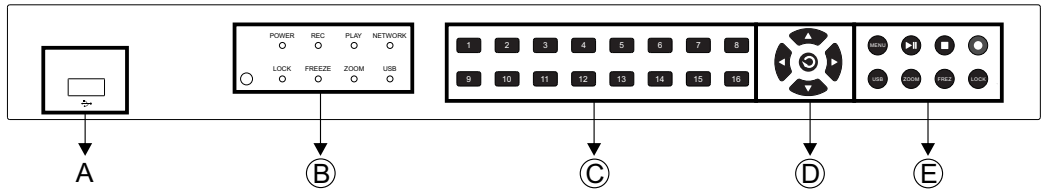
---

1) SPECIFICATION	1
2) FRONT PANEL	2
3) REAR PANEL	4
4) INITIALIZATION	5
5) DVR SYSTEM SETUP	6
TIME/DATE SET	6
HDD FORMAT SET	6
FACTORY RESET	6
VIDEO SYSTEM	7
LANGUAGE	7
BUZZER	7
RELAY ENABLE	7
AUDIO SOUND	7
CHANGE PASSWORD	7
FIRMWARE UPDATE	7
6) DISPLAY SETUP	8
CAMERA NAME	8
COLOR SET	8
AUTO SEQ. SET	8
BOUND COLOR	8
7) PTZ SETUP & OPERATION	9
PTZ SETUP	9
PTZ OPERATION	9
8) DVR RECORDING SETUP	10
HDD OVERWRITE	10
REC SPEED & QUALITY	10
PLAYBACK FRAME RATE	10
RECORD SETUP	10
AUDIO SOURCE	10
9) DVR RECORDING OPERATION	11
MANUAL RECORDING	11
SENSOR & MOTION RECORDING	11
SCHEDULE RECORDING	12
10) DVR PLAYBACK	13
PROMPT PLAYBACK	13
SEARCH BY TIME	13
EVENT LIST	13
RECORD LIST	13
11) FILES BACKUP	14
12) NETWORK SETUP	15
13) NETVIEWER OPERATION	16
14) STORAGE	23
15) REMOTE CONTROLLER	24
16) DEFAULT SETTING TABLE	25
17) RECORD TIME TABLE	26
18) PASSWORD AUTHORIZATION	26
19) HDD COMPATIBILITY	27

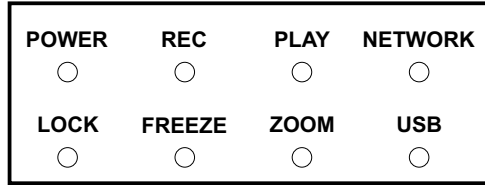
## 1) SPECIFICATION

Video Type	NTSC	PAL
Video Input	16 CH Input/ 1V p-p / 75 Ohm / BNC	
Audio Input	1 CH Input/ RCA	
Video Output	2 CH Monitor Output / BNC	
Audio Output	1 CH Output / RCA	
Display Mode	Full Mode · 4/9/13/16 Division · Circulate Auto Switcher	
Display Resolution	720 x 480	720 x 576
Recording Resolution	720 x 240	720 x 288
Compress Rate (KB/image)	Normal Image:13~17KB	Normal Image: 15~19KB
	Complex Image: 20~25KB	Complex Image: 22~27KB
Recording Speed	Max. 120 fps	Max. 100 fps
Compress Algorithm	Modified M-JPEG	
Operation System	Embedded Linux	
Triplex	Record/Playback/Network	
Recording Mode	Full-Time, Manual, Schedule, Event	
Schedule Recording	Every day circulation four sectors (full-time/minute)	
Status Indicator (LED)	Power, Record, Playback, Network, USB Archive, Zoom magnify, Freeze, Key Lock	
Event Mode	Alarm Trigger, Motion Trigger	
	Recording Duration:1~99 minute	
Alarm Port PlayBack	Alarm in (16ch)/Relay Out (1ch/N.O. or N.C.)	
	Normal: 1multiple seed	
	Fast Forward: x2/ x4 / x8 / x16 multiple speed	
	Fast Backward: x2 / x4 / x8 / x16 multiple speed	
	Single still image per pushbutton	
	Searching Function: time table/Event/Manual/Schedule	
Network Protocol	TCP/IP · DHCP	
Communication Protocol	RS-485	
HDD Type	SATA HDD 3.5 inch / 7200 rpm *2	
HDD Management	Automatic formatting by system	
P/T/Z Control	Internal Communication Protocol, RS-485 interface Control	
Back Up	USB 1.1	
Firmware Update	USB 1.1 flash drive	
Language	English/ Chinese / Others	
Control Mode	Front panel/ IR remote controller/ Remote keypad control (Optional)	
Remote Control	NetViewer (PC application program), LAN download	
Network Function	Live Play Viewer / Network events playback / USB drive files play	
Power Supply	AC I/P VOL: AC115V~AC230V CUR: 5A MAX. FREQ: 50~60Hz	
Unit Dimension	43 (w)x31 (D)x4.8 (H) cm (Standard 1U machine)	
Unit Weight	Approx. 3.5 kg ( Not included Hard Discs)	
Operating Temperature	5°C ~ 40°C	

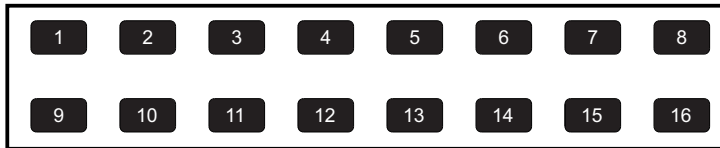
## 2) FRONT PANEL



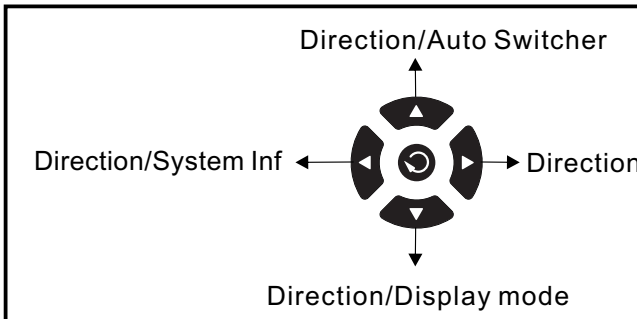
**A** USB plug



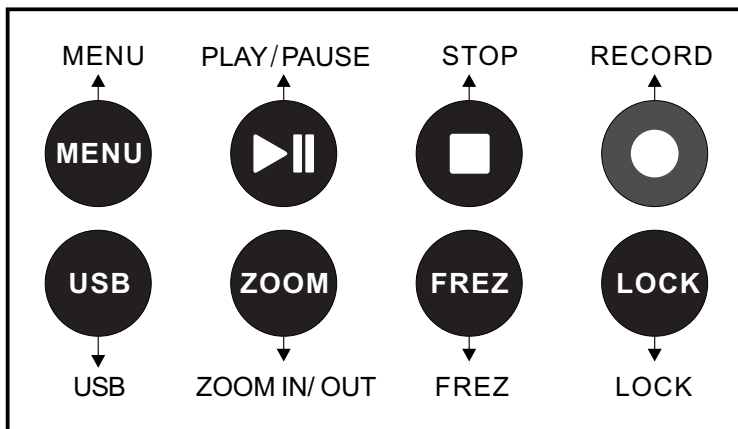
**B** Indicator Led



**C** Channel Buttons



**D** Direction/Auto Switcher/  
System Info./Display mode



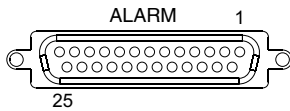
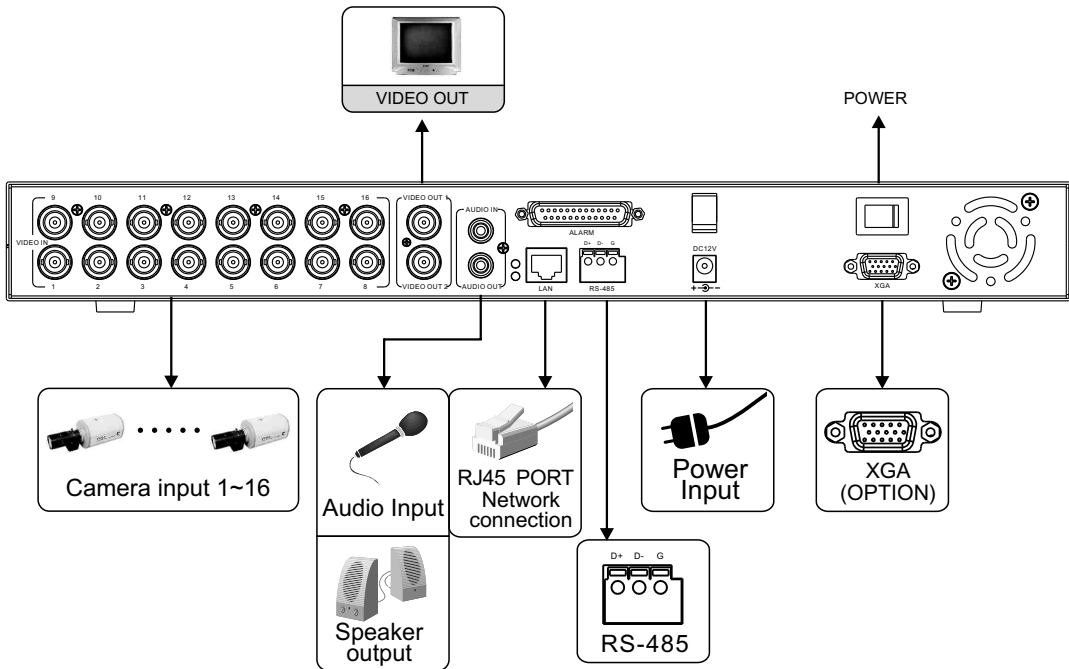
**E** Functions

## Front Panel

Status Indicator (LED)	Power, Record, Playback, Network, USB Archive, Zoom magnify, Freeze, Key Lock
USB plug	USB drive, firmware update & backup
Channel no	Full Mode given under status of recording and playback
Display Mode	Press the buttons to show 4, 9, 13 and 16 divisions. Double clicks to view each channel from the divisions.
Auto Switcher	a. Quad sequence switch in quad split mode . b. Single channel display in sequence. Channels or duration of stay seconds are settable.
System Info.	Press to indicate current system information.
MENU	Press to enter MENU. Press again to "save" or "exit" the menu.
FREZ	a. Under full mode, press FREZ to freeze current screen (frame) b. Under divisions, press FREZ to freeze and select the single channel that you want to look at.
ZOOM	Press to get a white block. Position the block to mark the "zoom in". Press again the button to zoom in the image.
USB	a. Press button to archive video streams. Press again to stop archiving. b. Under full screen mode, press the button to get and save snapshots. *Caution: System error may occur if the USB storage is removed while backup is under way.
LOCK	Press to lock and get all buttons inactive. Press again to unlock, pass words ★required.
REC.	Press to start manual recording.
STOP	Press to stop recording or playback.
ENTER	Enter an option.
PLAYBACK/	Under recording or monitor modes, press this button to playback procedure.
PAUSE	During playback, press to pause the recording.
Direction	Position the MENU or change the option.
->FF	In playback operation, push -> Fast Forward to x 2 / x 4 / x 8 / x 16 multiple speed
<-FR	In playback operation, push <-Fast Backward to x 2 / x 4 / x 8 / x 16 multiple speed

★Read page 26 for 【Password Authorization】

### 3) REAR PANEL



#### Alarm sensor input / output (DB25)

- |                              |                                |                       |
|------------------------------|--------------------------------|-----------------------|
| 1 \ Sensor input of camera 1 | 10 \ Sensor input of camera 10 | 19 \ Relay N.O output |
| 2 \ Sensor input of camera 2 | 11 \ Sensor input of camera 11 | 20 \ GND              |
| 3 \ Sensor input of camera 3 | 12 \ Sensor input of camera 12 | 21 \ GND              |
| 4 \ Sensor input of camera 4 | 13 \ Sensor input of camera 13 | 22 \ GND              |
| 5 \ Sensor input of camera 5 | 14 \ Sensor input of camera 14 | 23 \ GND              |
| 6 \ Sensor input of camera 6 | 15 \ Sensor input of camera 15 | 24 \ GND              |
| 7 \ Sensor input of camera 7 | 16 \ Sensor input of camera 16 | 25 \ GND              |
| 8 \ Sensor input of camera 8 | 17 \ Relay .COM output         |                       |
| 9 \ Sensor input of camera 9 | 18 \ Relay N.C output          |                       |

---

#### 4) INITIALIZATION

- Power Supply

Use the power cord provided in the package to connect the power supply (AC115V~AC230V).

- Connect BNC of Cameras to BNC of DVR

Coaxial cable cat6 or above is suggested.

- DVR Network Cabling

Please connect HUB or Router to the TCP/IP port with RJ connector and make sure the led is light. Static IP & DHCP are supported.

- Alarm I/O

Alarm I/O DB25(25PIN)

- Speed Dome Camera

Pelco D、Pelco P & MIKAMI Speed Dome protocol supported.

- Start Up

Turn on the switch on the rear panel after above setting.  
Press [MENU] and key in password to enter DVR menu.




★Read page 26 for 【Password Authorization】


---

## 5) DVR SYSTEM SETUP

Press  enter MENU. Select **【SYSTEM SET】** to set or change the options.

### ● TIME /DATE SET

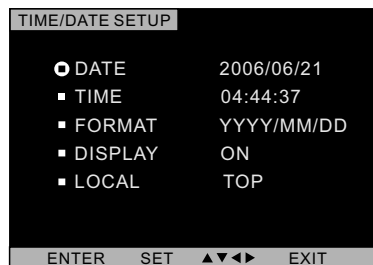
1. Select **【TIME /DATE SET】** and press  button to select the options.

Press  button to change the settings not under recording status.

2. Date formats **【FORMATE】** :yyyy/mm/dd, mm/dd/yyyy, dd/mm/yyyy

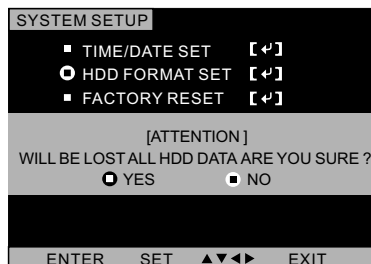
3. Time displays on screen when **【DISPLAY】** "ON", not on screen when "OFF".

4. **【LOCAL】** is the location of TIME/DATE display. "TOP" or "BOTTOM" available.




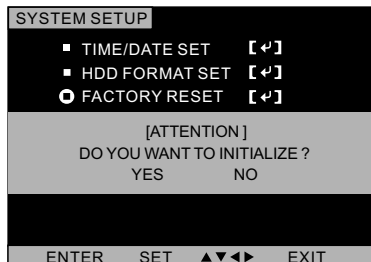
### ● HDD FORMAT SET

When enter into **【HDD FORMATE SET】** , it will warn you "YES" to clear all data whereas select "NO". It is not possible to undo HDD format.



### ● FACTORY RESET

Enter into **【FACTORY RESET】** , and select "YES" to get system default setting whereas select "NO". ※for details of **【DEFAULT SETTING】**



● VIDEO SYSTEM

Select **【VIDEO SYSTEM】** and press  to select (NTSC) or (PAL) system.


● LANGUAGE

Select **【LANGUAGE】** and press  to select language on screen display.

● BUZZER SOUND

Select **【BUZZER SOUND】** and press  to set “ON” or “OFF” of buzzer sound.

● RELAY ENABLE

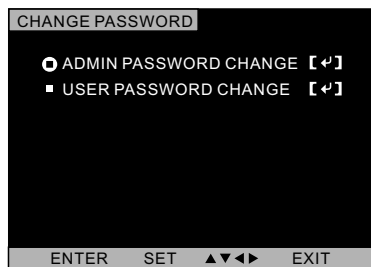
Select **【RELAY ENABLE】** and press  to enable or disable relay device.  
※Enter **【SENSOR SETUP】** to setup sensor.

● AUDIO SOUND

Select **【AUDIO SOUND】** and press  to enable or disable the audio.  
Only single channel for audio input/output.

● CHANGE PASSWORD

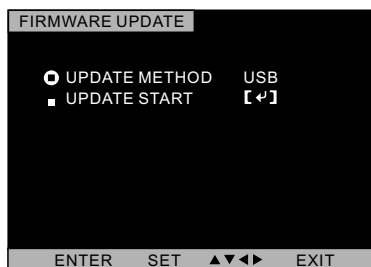
Enter into **【CHANGE PASSWORD】** to select either **【ADMIN PASSWORD CHANGE】** or **【USER PASSWORD CHANGE】**. Key in the password and then give a new password. Key in new password again to confirm this change.



● FIRMWARE UPDATE

Get the update firmware and put it into directory X:\Firmware of the USB drive( 'X' is the given name for USB drive under Windows OS. Put the USB drive into the USB port and enter into **【FIRMWARE UPDATE】**. Select **【UPDATE START】** "YES" to start update or "NO" to stop proceeding.

※Only use USB port to update firmware. System error results from removing the USB drive while updating. DVR must reboot after firmware update. To prevent from system error, run factory reset before use.




---

## 6) DISPLAY SETUP

Enter into MENU . Select **【DISPLAY SETUP】** to set up display of each channel.



### ● CAMERA NAME

Enter **【CAMERA NAME】**  to name the camera on screen display.

Select the camera no address

to name the camera. Select the letters, numbers or symbols at the bottom of screen with maximum 6 bites for camera's name.

### ● COLOR SET


Enter **【COLOR SET】** to adjust contrast, brightness, hue and saturation for current channel. Press  to select options. Press  to do the adjustments, and the changes shown directly on screen display.

### ● AUTOSEQ SET


**【AUTOSEQ SET】** and **【QUAD SEQUENCE】** provided. about Auto Switcher button details on FRONT PANEL.

1. Enter **【AUTOSEQ】** to setup the duration seconds of single channel in sequence.

The maximum duration is up to 99 seconds. It will pass the display in case of setting 0 second. (The default is 02 seconds).

2. Select **【QUAD SEQUENCE】** and press  setup the duration seconds of quad sequence. The maximum duration is up to 99 seconds. (The default is 02 seconds).

### ● BOUND COLOR & BLANK COLOR

Select **【BOUND COLOR】** or **【BLANK COLOR】** and press  to setup the color of margin lines of blue/white or background of blue/black.

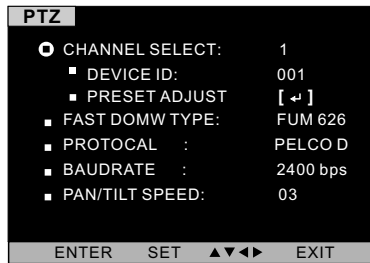
---

## 7) PTZ SETUP & OPERATION

Make sure to understand the usage for speed dome before your setting up **【PTZ】**


### ● PTZ SETTING

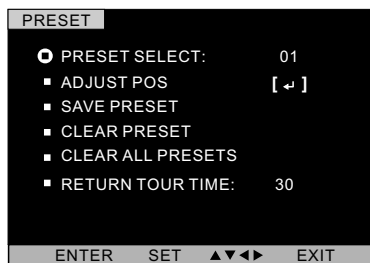
1. Select the Speed Dome camera from **【CHANNEL SELECT】** and setup **【DEVICE ID】** accordingly.
2. Setup **【FAST DOME TYPE】** and then **【PROTOCOL】** . Finish setup of **【BAUDRATE】** to operate Speed Dome camera.
3. **【PAN/TILT SPEED】** default on 03 and range from 01(slow) to 05 (fast).




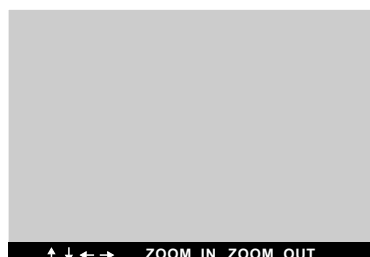
### ● PTZ OPERATION

After above setting, you can preset a journey of speed dome.

1. Enter **【PRESET ADJUST】** to select number of **【PRESET SELECT】** .
2. Enter **【ADJUST POS】** to preset the positions of every stop of the journey via navigator of remote controller and PTZ control button. ( check page 30 for reference).
3. Press  back to **【PRESET ADJUST】** and select **【SAVE PRESET】** to save the settings.
4. Select **【CLEAR PRESET】** to clear a preset or clear all presets by selecting **【CLEAR ALL PRESET】** .
5. Select **【RETURN TOUR TIME】** to set the time that return TOUR mode for speed dome.



6. Press the right side down button on remote controller to enter PTZ control mode. Under this mode, press up/down/right/left to control speed dome or PTZ control button. And  button on remote controller enables the speed dome moved by your setting of the presets.




---

## 8) DVR RECORDING SETUP


Enter  and select **【RECORD SETUP】** to setup recording functions.

### ● OVER WRITE


Select **【OVER WRITE】** and press  “YES” to overwrite data in HDD or “NO” not overwrite it.

※Caution : It's impossible to undo overwritten data.


### ● REC SPEED & QUALITY

Select **【REC SPEED】** and press  to setup recording speed. The default is 60 frames per second (fps). Setting more frames results more fluently of image movement during play back. But the larger frame rates may shorten of record time. For reference.

※CIF mode: NTSC 120fps; PAL 100fps. Under CIF mode, DVR will record all channels and cannot work on option **【RECORD CH SET】** .




Select **【REC QUALITY】** and press  to adjust recording quality. Range from 01 (normal) to 04 (better) , default on 03. A better quality image means big size and casues short record time. For reference, please look up page 32 「Record Time」 table.

### ● PLAYBACK SPEED


Select **【PB SPEED】** and press  to setup playback speed, default on “AUTO”.

※Caution : Playback speed comes fast forward or fast backward when **【REC SPEED】** and **【PC SPEED】** are not set up at same speed. Setup both of them at the same speed or set them “AUTO” for a normal playback speed.

### ● RECORD CHANNEL SET

Enter **【RECORD CH SET】** and press  to select channel. Press  to enable or disable of the REC. button  , default on able for all channels.

### ● AUDIO SELECT



Enter **【AUDIO SELECT】** and press  to select the audio recordable channel. The channel selected could do the recording with audio at the same time. This selected channel on screen display will be yellow marked.

## 9) DVR RECORDING OPERATION

This DVR provides three recording modes, manual recording, sensor & motion recording and schedule recording.

### ● MANUAL RECORDING














Manual recording is pressed  to start recording by the user.

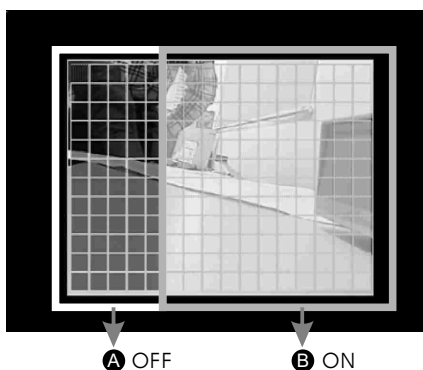
1. Press  to start recording and saving data to HDD. There will be a red ● marked on screen display when recording.
2. Press  to stop recording.  
(Key in the password in case it was set.)



### ● SENSOR & MOTION RECORDING

Enter  and select **【SENSOR SETUP】** to setup the sensor recording.








1. Select **【CHANNEL SELECT】**. Press   to select the channel and setup **【ALARM ENABLE】**、**【MOTION ENABLE】**、**【MOTION LEVEL】** and **【MOTION AREA SET】**.
2. Sensor Recording : Select **【ALARM ENABLE】** and press   to setup external sensor (Normal Open、Normal Close & Off). Choose N.C./N.O. to work with external sensor device. On screen display pops up with an “M” upon sensor triggered and DVR starts the recording, buzzer and screen display.
3. Motion Recording : Select **【MOTION ENABLE】** and press   to setup motion detection. On screen display pops up with an “M” upon motion detected and DVR starts the recording, buzzer and screen display.
4. **【MOTION LEVEL】** sensitivity grades from 01 (low) to 09 (high). Enter into **【MOTION AREA SET】** and press  to select the area. Press up/down/right/left     buttons to block the area (yellow- motion detection /clear-OFF) Press again  to enable/disable motion area. Press  MENU to exit and save the setting.



5. Set **【BUZZER TIME】** for buzzer duration seconds, available from 01 to 99 seconds ( default on 05 seconds).
6. Sensor recording time, default on 10 seconds, is subject to **【SENSOR REC TIME】** and ranges from 10 seconds to 99 seconds. Enable **【ALARM SCREEN】** to provide full screen display for the alarm triggered camera.

### ● SCHEDULE RECORDING

Press  and select **【SCHEDULE SETUP】** to setup schedule recording as 4 sections a day.

1. Enter **【SCHEDULE SETUP】** and press  to select ON/OFF, START, END & T/M(footnote 1) also FPS (frame per second). Use  button to change the selection. Press  to save and exit setting.
2.  will be marked on screen display after schedule set and can not press  to stop the recording.
3. In any emergency case (not in schedule), press  to start a manual recording and press  to stop manual recording to back to origin schedule setting.
4. Priority in schedule table 1 > 2 > 3 > 4. Top priority runs the recording time prior to other schedules. For example, Schedule 2 (06:00~06:23) will run after schedule 1 (06:00~06:59) at 06:59


○	START	STOP	T/M	FPS
1 ON	00:00 ~	06:59	T	30
2 ON	00:00 ~	20:59	T	60
3 ON	21:00 ~	23:59	M	60
4 OFF	__:__ ~	__:__	-	---

ENTER    SET    ▲▼◀▶    EXIT

Footnote : 「 T 」 means to record according to setting of START/END time.  
「 M 」 means to record according to setting of MOTION RECORDING or SENSOR RECORDING during START/END time.



---

## 10) DVR PLAYBACK

4 playback modes are provided as 「DIRECT PALY」 、 「PLAY TIME SELECT」 、 「RECORD EVENT LIST」 and 「MANUAL RECORD LIST」 Press  to enter playback.






### ●DIRECT PLAY

Use DIRECT PLAY to retrieve the initial video records.

1. Press  and select **【DIRECT PLAY(10)】** to start playback.
2. DIRECT PLAY retrieved the initial video records, even the HDD was overwritten.
3. FF/FR is able to speed up to X 16 multiple when playback. Press  to stop playback.





### ●PLAY TIME SELECT

Select PLAY TIME SELECT to retrieve the video records by time.

1. Press  and select **【PLAY TIME SELECT(11)】** to search time and retrieve the video records. Press  to select year/month/day/hour/minute/second and  to give digits.
2. Select the time bar only for red  marks, video available, FF/FR is able to speed up to X 16 multiple when playback. Press  to stop playback.

### ●RECORD EVENT LIST

Select RECORD EVENT LIST to retrieve the video records occurred by events.

1. Press  and select **【RECORD EVENT LIST(12)】** to get event list. Press  to select events and  to playback.
2. FF/FR is able to speed up to X 16 multiple when playback. Press  to stop playback.

### ●MANUAL RECORD LIST

Select MANUAL RECORD LIST to retrieve the video recorded by manual recording.

1. Press  and select **【MANUAL RECORD LIST(13)】** to get manual recording list. Press  to select the recording and  to playback.
2. FF/FR is able to speed up to X 16 multiple when playback. Press  to stop playback.



Manual recording creates a record in manual record list. System builds up list record at 00:00/04:00/08:00/12:00/16:00/20:00. Suppose DVR starts recording at 07:30 until 19:30. List record 07:30-08:00、 08:00-12:00、 12:00-16:00、 16:00-19:30 will be found.

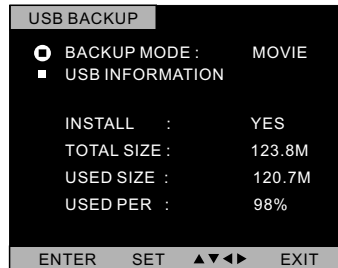
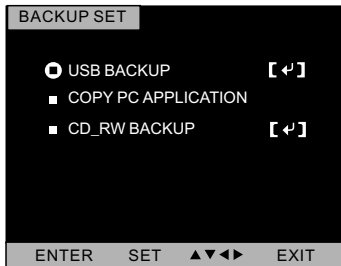
## 11) FILES BACKUP








DVR provides USB backup & CD-RW backup. Backup should be play via NetViewer program. For details, please refer to chapter 13. NetViewer

### ● USB BACKUP

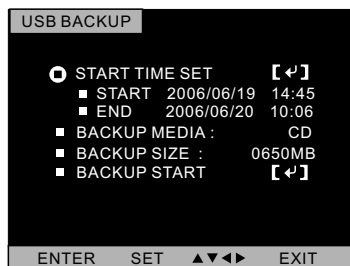
Live images or video records can be saved as backup files in USB flash. 2 modes are available "STILL" and "MOVIE"

1. Enter and  select **【BAKUP SET】** **【USB BACKUP】** **【BACKUP MODE】** for "MOVIE" or "STILL" mode. Press  to save and exit.




2. Insert USB flash drive to USB port. Playback the video for backup, then press  to start USB backup.
3. Press  to start movie backup while  icon will be shown on screen. Press again  will stop the backup. Do not remove USB flash drive until  icon is gone.
4. Select a single channel for snapshots (STILL mode). Press  to have snapshots. Do not remove USB flash drive until  icon is gone.

★**Caution** : A error may occur if the USB storage is removed under  or  status.



---

## 12) NETWORK SETUP

Press  to enter menu. Select **【NETWORK SETUP(4)】** to setup network.  
A remote user could download instruction manual and NetViewer via IE browser.  
User could remotely access the DVR through NetViewer.

### ● SETUP


**【IP MODE(4-4)】** (footnote 3) : " Static IP" & "DHCP"

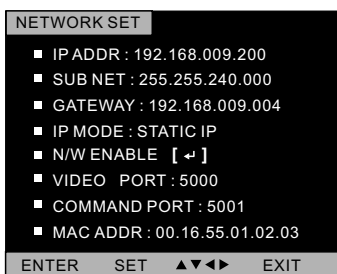
1."Static IP" Mode must set **【IP ADDR(4-1)】** 、 **【SUB NET(4-2)】** 、 **【GATEWAY(4-3)】** 。





2. "DHCP" does not require above setting. Press  to exit and get DHCP set.

Enter **【NETWORK SETUP(4-5)】** to setup the available channel on (NetViewer).

**【VIDEO PORT(4-6)】** default on 5000 ; **【COMMAND PORT(4-7)】** default on 5001.

Press  to change **【VIDEO PORT(4-6)】** & **【COMMAND PORT(4-7)】** , up to 20 options. **【MAC ADDR(4-8)】** is the only MAC Address.



※ IP ADDRESS, SUB NET & GATEWAY: Block the number and use  to change the digits. Or press  and use  to set particular digits, 255 is the maximum. Press again  to save the setting

Footnote 3 : Please contact your ISP to confirm **【IP MODE】**

### ● Operation

After above setting, user could download the instruction manual and NetViewer via IE browser. Please refer to chapter 13 for details of **【NetViewer】**

### 13) NETVIEWER OPERATION

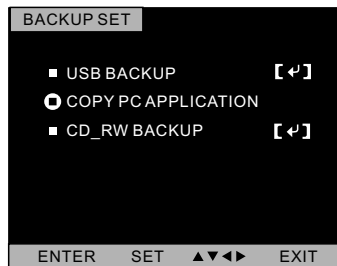
- Instruction

Network Viewer make it possible to monitor, playback and back up video remotely.


- System Requirement

OS : Windows 2000 or above

- Software Retrieving & Installation




- Retrieving software via USB flash from DVR :

1. Insert USB flash drive into USB port.
2. Enter  MENU and select 「BACK UP(7)」 「COPY PC APPLICATION」 to copy NetViewer.exe、NVP3000\_DLL\_MMX.DLL and WNASPI32.DLL to USB flash drive.
3. Copy 3 files NetViewer.exe、NVP3000\_DLL\_MMX.DLL and WNASPI32.DLL from USB flash to PC. Then, NetViewer.exe is workable.

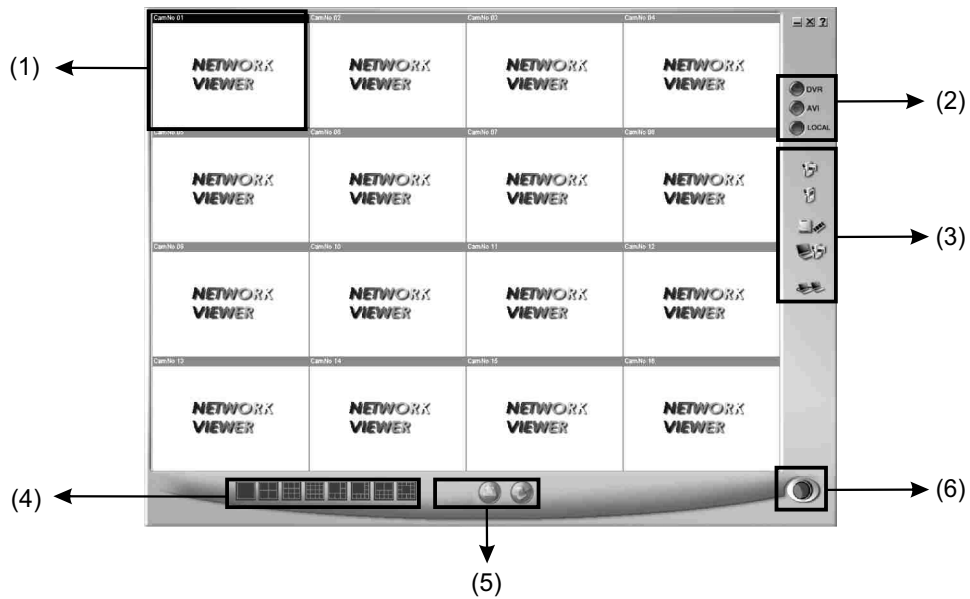
→Retrieving software via IE Browser :

Access DVR IP via IE browser and then find the below pictures shown.

1. Click NetViewer to download netviewer.exe
2. After installation of NetViewer,  icon will be created on PC desk. Click the icon to run it.






## ● INTERFACE










(1) Video Display  
Video comes up to this area in divisions subject to setting.

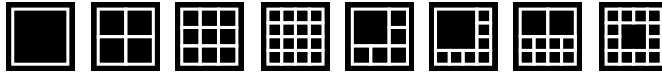
(2) Status Indicator

	DVR	It lights up while recording.
	AVI	It lights up while AVI backup.
	LOCAL	It lights up while saving video to PC

(3) Buttons



	Real time monitor	Press to start monitor in remote
	Pause/Stop	Stop monitor or backup files
	AVI format	Convert files to .AVI format
	HDD Backup	Save video stream to PC's HDD (Using  to playback)
	Disconnect	Disconnect to DVR
	Connect	Connect to the DVR

#### (4) Division Options




Click to choose a display mode.


#### (5) Playback

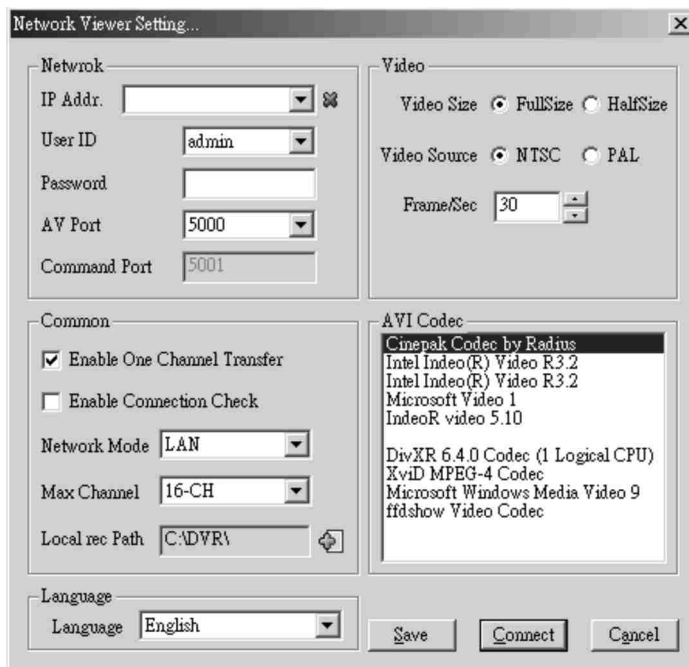
 ScanDisk	playback for CD-RW backup
 FilePlay	playback for USB or PC backup


#### (6) Close Netviewer

 the button to exit system

#### ● Network connection setting

Press  to enter Netviewer setup.




■ Network : Setup 「IP Addr」 first and select 「AV Port」. Key in 「User ID」 and 「Password」, then press **Connect** Connect to start connecting. Press  to clear 「IP Addr」 and the related settings.

Attention : System provides one user ID “admin” and another two ID “guest” to monitor DVR.

■ Common :

1. 「Enable One Channel Transfer」 : Click this function to improve video stream fluency through the internet. Better disable this function while video backup.
2. 「Enable Connection Check」 : Click to check IP address automatically.  
Attention: This option is not suggested when network is doing but gets no response about 「IP Addr」
3. 「Network Mode」 selection :

Local	「PC to DVR」 faster transmission.
LAN	Local Area Network, transmission up to 30 frames/ sec.
WAN	Wide Area Network, transmission about 1-3 frames / sec

4. 「Max Channel」 to select the maximum channels of DVR.
5. 「Local rec Path」 Save files  ( backup to PC's HDD) to the selected file folder (path) on PC.

■ Language : Language options.

■ Video :

Can setup 「Video Size」 for .AVI files, and 「Video Source」 (NTSC or PAL) and 「Frame/Sec」



★ Attention : 「Video Size」 effects AVI image with full size or half size.

Maximum for 「Frame/Sec」 is 30.





■ AVI Code :

Select a suitable code to convert the film to .AVI format.

● Connect to the DVR

Click  to enter options. Key in 「IP Addr」 & 「Password」 , then click  to start remote access.

● Real time monitor

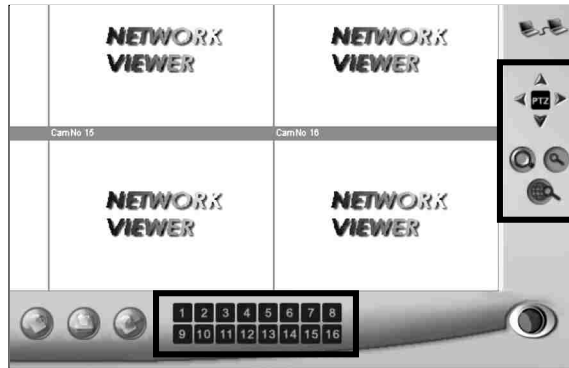
Click  to start real time monitor. Click  to stop monitor. You could click  to save video to .AVI format files or click  to save video streams to PC's HDD.

★ Attention : Within video display area, click right button of mouse to get JPEG images from single or all channels. Also, it can print/ restore images and display as watermarks.

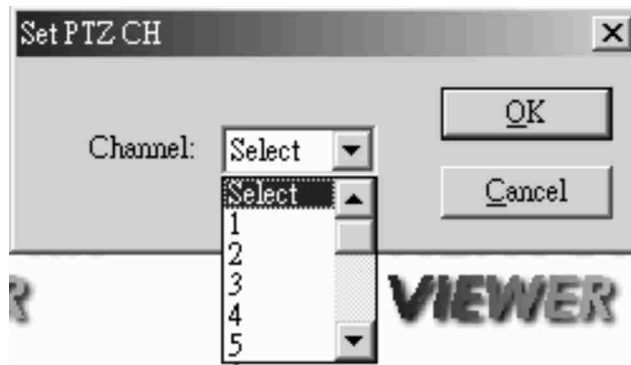


● PTZ






Network Viewer is able to do PTZ control if DVR does not have PTZ setup.





Click PTZ 「Set PTZ CH」 : 

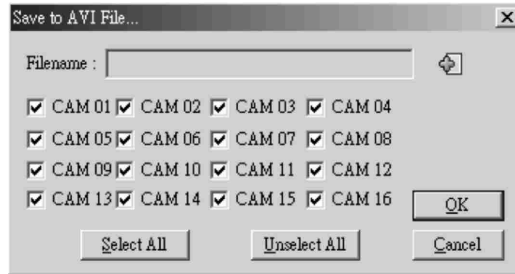


Operation :



	Control UP/DOWN/LEFT/RIGHT display
 (Zoom In)	Zoom In
 (Zoom Out)	Zoom Out
 (Auto Pan)	Auto pan (Preset Point) up to 16 points
	Moves to (Preset Point)

● AVI Backup




Click  for below window. Select the channel (CAM) no. you want to back up and click OK to start backup. When backup is finished, just click  to stop backup



★ Attentions:

1. AVI converting requires large system resources. Better click  to backup the video stream to PC's HDD instead.
2. Bandwidth makes every channel display with different frame rates. AVI files come out with various speed and audio is not available.
3. When doing the playback in a PC , make sure to select the same AVI codes with converting AVI

● PC HDD Backup

Click  to backup to PC's HDD and  LOCAL will light up accordingly. Click again  to stop backup.


● ScanDisk

Click  for ScanDisk.

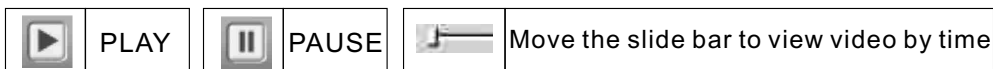


「ScanDick」 can read :

- 1.HDD from DVR
2. Video files in (CD-ROM)


Select the device from ▼option and click  to playback.

3.Control bar :



---

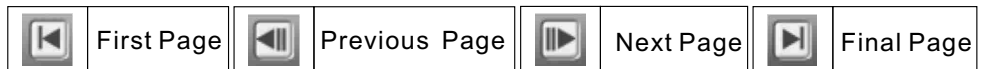
● FilePlay

Click  to enter FilePlay



「FilePlay」 can read :

1. Video files from USB flash drive
2. Video files from PC's HDD
3. Control bar :




## 14) STORAGE

### ● System info

Press "INFO" button on remote controller to get information of HDD model、capacity、used volume %、overwritten times、record list、event list、IP address and firmware version. HDD USED is yellow blocked while video is being recorded.

STORAGE INFO		
	MASTER	SLAVE
HDD MODEL	SAMSUN SV	ST380011A
HDD SIZE	160G	80G
HDD USED	50%	100%
HDD READ		
OVERWRITE	01	00
REC LIST	0085	0047
EVENT LIST	0031	0007
NETWORK IP	192.168.111.222	
S/W VER.	V3.07	

### ● HDD INFO

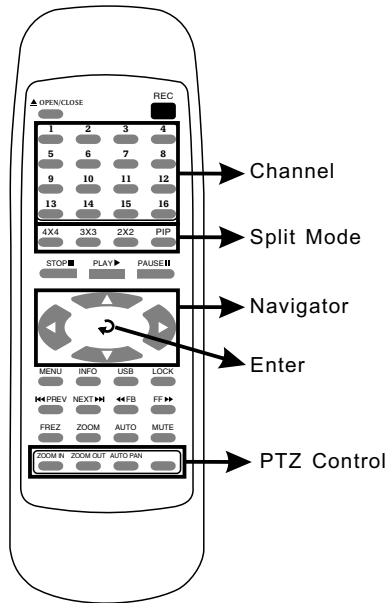
Press  and select **【STORAGE INFO】** to review HDD information of HDD model、capacity、used volume %、overwritten times.

Caution : HDD must be formatted before use.

STORAGE INFO		
	MASTER	SLAVE
HDD MODEL	SAMSUN SV	ST380011A
HDD SIZE	160G	80G
HDD USED	50%	100%
HDD READ		15%
OVERWRITE	01	00
REC LIST	0085	0047
EVENT LIST	0031	0007
NETWORK IP	192.168.111.222	
S/W VER.	V3.07	

STORAGE INFO	
MASTER MODEL :	SAMSUN SV
CAPACITY :	160G
USED SIZE :	50%
OVER WRITE :	01
SLAVE MODEL :	ST380011A
CAPACITY :	80G
USED SIZE :	100%
OVER WRITE :	00
ENTER SET ▲▼◀▶ EXIT	

## 15) REMOTE CONTROLLER



● **OPEN/CLOSE** : CD Drive

● **REC** : Start/Stop **Recording**

● **Channel** : Single channel display in recording/playback mode.

● **Split Mode** : Various split modes option.

● **STOP** : Hit this button to stop recording/playback.

● **PLAY** : To enter playback menu.

● **PAUSE** : To pause playback. To lockup **keypad and** shut off monitor while recording.

**Need password to unlock.**

● **Navigator** : to select option and setting.

● **Enter** : Enter.

● **MENU** : To enter menu. To save the setting and exit..

● **INFO** : To review system information.

● **USB** : Hit this button once to backup movie twice to stop. Snapshot must be in the single channel mode one hit one picture.

※Attention: System will be in big wrong if user removes memory stick while **A** or **S** on screen display.

● **LOCK** : Hit once for lockup twice for unlock. Password **required prior to** unlock.

● **PREV** : For previous video play.

● **NEXT** : For next video play.

● **FB** : For slow playback speed.

● **FF** : For fast playback speed.


● **FREZ** : To freeze the single channel display.

● **ZOOM** : To zoom in the images.

● **AUTO** : Quad sequence switch in quad split mode. Single channel sequence switch can setup channel and stay time.

● **MUTE** : Soundless.

● **PTZ** :

Hit the button  on the right hand side to enter PTZ control.

Hit navigator to control speed dome.

Hit ZOOM IN & ZOOM OUT To adjust focus.

Hit AUTO PAN to start scheduled journey.

★Read page 26 for [Password Authorization]

## 16) DEFAULT SETTING TABLE

1'st Menu	2'nd Menu	3'rd Menu	Default	1'st Menu	2'nd Menu	3'rd Menu	Default	
System Set	Time Set	Date	Not Change	Network Set	IP Addr		Not Change	
		Time	Not Change		Gateway		Not Change	
		Format	YYYY/MM/DD		Sub Net		Not Change	
		Display	ON		IPMode		Static IP	
		Local	UP		Network Setup		ON	
	HDD Format Set		Not Change		Video Port		5000	
	Factory Reset		Not Change		Command Port		5001	
	Video System		Not Change		MACAddr		Not Change	
	Language		Not Change		Sensor Set	Channel Select		Not Change
	Buzzer Sound		ON			Alarm Enable		N.O.
	Relay Enable		ON	Motion Enable			OFF	
	Audio Sound		1111	Motion Level			05	
	Change Password	Admin Password Change User Password Change	2222	Motion Area			ON	
	Firmware Update	Interface	Not Change	Buzzer Time			5 seconds	
		Start Update	Not Change	Sensor REC Time			10seconds	
Display Set	Camera Name		Number	Schedule Set		Alarm Screen		OFF
	Color Set	CON	50			1		OFF
		BRI	50			2		OFF
		Hue	50		3		OFF	
		SAT	50	4		OFF		
	AutoSeq Setup		2 Seconeds	Backup Set	USB Backup	Backup Mode	Movie	
	Bound Color		White		Copy PC Application		Not Change	
	Blank Color		Blue	Storage Info	CD_RW Backup	USB Information	Not Change	
Quad Sequence		2 Seconeds				Not Change		
Record Set	Over Write		Yes	PTZ	Channel Select	Time Setting	Not Change	
	REC Speed		60 frame/sec		Protocol	Device ID	OFF	
	REC Quality		03		Baudrate		PEL_CD D	
Record Set	PB Speed		automatically		Model		2400 bps	
	Record Ch Set		ON		PTZ Speed		FUM_626	
	Audio Select		OFF				03	

## 17) RECORD TIME TABLE

Resolution	FPS	Record Quality			
		NTSC			
		04	03	02	01
720 * 240	60	8.8 GB/hr	6.4 GB/hr	4.9 GB/hr	4.2 GB/hr
	30	4.6 GB/hr	3.4 GB/hr	2.9 GB/hr	2.5 GB/hr
	20	2.2 GB/hr	1.6 GB/hr	1.32 GB/hr	1.2 GB/hr
		PAL			
720 * 288	50	8.2 GB/hr	5.8 GB/hr	5.4 GB/hr	4.7 GB/hr
	25	4.0 GB/hr	2.9 GB/hr	2.3 GB/hr	2.0 GB/hr
	12	2.0 GB/hr	1.4 GB/hr	1.2 GB/hr	0.8 GB/hr

## 18) PASSWORD AUTHORIZATION

	Admin password	User password	No password
Record	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Live Display	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO
Monitor Lock	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO
Keypad Lock	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO
Play	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO
Stop	<input checked="" type="checkbox"/>	NO	NO
Menu	<input checked="" type="checkbox"/>	NO	NO
Network	<input checked="" type="checkbox"/>	NO	NO
PTZ	<input checked="" type="checkbox"/>	NO	NO

---

## 19) HDD COMPATIBILITY

Brand	NameModel	Size
Seagate	ST3160812AV	160GB
Seagate	ST3250310CS	250GB
Seagate	SA3500641AS	500GB
Seagate	ST3750330AS	750GB
HITACHI	HDT725025VLA380	250GB
HITACHI	HDT725032VLA360	320GB
HITACHI	HDP725050GLA360	500GB
HITACHI	HDS721075KLA330	750GB
HITACHI	HDS721010KLA330	1TB
Maxtor	STM3250820AS	250GB
Maxtor	STM3320820AS	320GB
Maxtor	STM3500630AS	500GB
WD	WD2500AVJS	250GB
WD	WD3200AAKS	320GB
WD	WD5000AAKS	500GB
WD	WD7500AAKS	750GB
WD	WD10EACS	1TB

