

Digital Video Recorder

คู่มือผู้ใช้งาน User Manual



PS-8316B 16-CH

H.264 NETWORK Embedded DVR

Virtual Real-Time, 4,8-CH H.264

TOMURA™

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INTRODUCTION

1.1 PREODUCT INTRODUCE

เครื่อง DVR-8316 ถูกสร้างด้วยแพลตฟอร์มใหม่. DVR-8316 เป็นเครื่องบันทึกภาพ 16 channel ความละเอียดบันทึกภาพขนาด CIFสามารถทำ local recording, playback,สนับสนุน trible code remote network surveillance, สำรองข้อมูล, ปรับแต่งพารามิเตอร์ขณะทำงาน, ตรวจจับความเคลื่อนไหว, ตั้ง I/O alarm, PTZ และ USB mouse, USB2.0 backup, IE browser และ back up.

1.2 PRODUCT FEATURE

- ◇ H.264 compression
- ◇ USB interface 2 ช่อง, USB2.0 สำหรับสำรองข้อมูล, USB1.1 สำหรับเมาส์
- ◇ 3.5" SATA HDD 2 ลูก.
- ◇ ระบบไฟล์ security พิเศษ
- ◇ เมนู GUI ใช้งานง่าย
- ◇ รองรับการ playback 4 ช่อง พร้อมกัน
- ◇ ระบบ user management สองระดับ
- ◇ สนับสนุน live view, ตั้งค่า parameter และ copy playback video ผ่าน network

1.2.1 SPECIFICATION

Item	Device	performance index
System	Language	Thai/Chinese/English
	GUI	Graphic menu
	password	user password, administrator password
Video	Video in	16ch complex video input 1.0V p-p, impedance75Ω, BNC
	Video out	2ch complex video output 1.0V p-p, impedance75Ω, BNC
	Video display	1/4/9/16 switch

	Video standard	PAL,25f/s,CCIR625line,50scene NTSC,30f/s,CCIR525line,60scene
Audio	Audio input	4ch audio input, impedance 600Ω,RCA
	Audio output	1ch audio output, impedance 600Ω,RCA
	Basic electricity output	Linearity electricity
	Record style	Audio video recorded simultaneously
	Audio compression	ADPCM
Picture proceeding and store	Picture compression	H.264
	Picture resolution	CIF/HD1/D1
	Streaming style	ISO14496-10
	Audio style	ADPCM
	Video code rate	CIF: 384Kbps ~ 768Kbps,8 level optional, 1 is highest,8 is lowest
	Audio code rate	32KB/s
	Data storage	Support all kinds of storage HDD
Alarm	Alarm input	8 alarm input
	Alarm output	1 alarm output
Connector	Serial interface	Support 1 RS232
	Serial interface	Support 1 RS485
	Network interface	RJ45,10M/100M
USB	Mouse	USB1.1
	Thumb drive	USB2.0
VGA	VGA	1 VGA (optional)
Software	PC playback	Playback video file
Software upgrade	Support USB,network firmware upgrade	
others	voltage input	AC:110~240V
	Voltage output	DC:19V@3A
	Voltage input	+12V@1A
	Power	16W without HDD
	Working temperature	-10----50℃

1.2.2 BASIC WORKING PARAMETER

item	parameter	ข้อควรจำ
Voltage input	19V	DC 19V.
Video impedance input	75Ω	75Ωeach channel.
Video output	1Vp-p	1Vp-p CVBS signal
I/O	0—2V	Low voltage alarm
	5V-30v	High voltage alarm
RS232		serial port, for extend use
RS485		Connect to PTZ, (Pelco-D, Pelco-P)
SATA HDD		2 SATA with maintain capability

1.3 ENTIRONMENT ADAPTABILITY

เพื่อการใช้งานที่เหมาะสมกับเครื่อง และ ยืดอายุการใช้งานอุปกรณ์ :

- 1) ขณะติดตั้งอุปกรณ์, โปรดทำตามมาตรฐานความปลอดภัยอุปกรณ์ไฟฟ้า
- 2) ไฟเลี้ยง :
 - ◆ ห้ามเปิดสวิตช์ DVR ขณะมือเปียก
 - ◆ ห้ามเทของเหลวใดๆลงเครื่อง
 - ◆ อย่าวางซ้อนเครื่อง
 - ◆ ใช้ผ้าแห้งนุ่มทำความสะอาด อย่าใช้น้ำยาเคมีใดๆ

2 DEVICE OPERATION

ปุ่มENTERบนรีโมทเปรียบเสมือนการคลิกซ้ายที่เมาส์

2.1 REMOTE KEY INSTRUCTION

2.1.1 REMOTE CONTROL



Handheld IR Controller Key Functions:

【0—9】 keys: ขณะทำการตั้งค่า, ใช้ปุ่มเหล่านี้ใส่ค่าตัวเลขดังนี้

สำหรับการเลือกดู 1,2,3 และ 4 ช่องสัญญาณ, กดปุ่ม 1,2,3 และ 4 ตามที่ต้องการ

【+】 , 【-】 keys: ขณะทำการตั้งค่า ปุ่ม บวก และ ลบ ใช้เลื่อนเมนู ถัดไป, ย้อนกลับ

▲, ▼: ปุ่มขึ้น ลง ในเมนูตั้งค่าใช้เลื่อนรายการบนล่าง

◀▶: ใช้เลือกซ้าย หรือ ขวาในเมนูตั้งค่า

【OK】 : ใช้เลือกเข้าเมนู

ระหว่างการเล่นย้อนหลัง และ preview จะแสดงชื่อ channel name, text number, driver name, event sensor item และ เวลา ปี/เดือน/วัน เวลา, ข้อมูล GPRS/GPS บน Screen

【PLAY】:เริ่ม/ทำต่อ การเล่นย้อนหลังต่อจากโหมดอื่นๆ (เดินไปข้างหน้า, ถอยหลัง,ทีละเฟรม ฯลฯ)

【SLOW】:ลดความเร็วในการเล่นย้อนหลังไปที่โหมด 1/2X, 1/4X, 1/8X, 1/16X.กด PLAYเพื่อกลับไปหน้าต่างแสดงที่ความเร็ว playback ปกติ

【PAUSE/STEP】:ค้างหน้าเฟรมเล่นย้อนหลังปัจจุบัน และ เลื่อนดูทีละเฟรม ให้กด Pause/Step เพื่อเลื่อนทีละเฟรม กด EXIT เพื่อย้อนกลับไปความเร็วเล่นย้อนหลังปกติ

【FWD】: เล่นภาพย้อนหลังไปข้างหน้าทีโหมด.X1, X2, X3, หรือ X4 กด FWD เพื่อเลือกกด **【PLAY】** เพื่อกลับสู่ความเร็วปกติ;

【REV】: ย้อนภาพวีดีโอขณะเล่นย้อนหลังโดยมีสปีโหมด 1X,2X,3X,4X กด REW เพื่อเลือก กด **【PLAY】** เพื่อกลับสู่ความเร็วปกติ

【STANDBY】: ใช้เปิดปิด DVR. (standby และ start up)

【LOGIN/LOCK】: ถ้าระบบ security ถูกตั้งค่าตอน setup, ให้ใช้ปุ่ม LOGIN/LOCK เพื่อเข้าสู่ user setup โปรดจำรหัสผ่านไว้เพราะไม่มีฟังก์ชันช่วยหากลืม Log in (คือหน้า Interface ใส่ “ User ID select” และ “ Password ”) และ lock functions (เพื่อออกจาก setup และ การทำงาน)

【EXIT】: ออกไปหน้า preview หรือ กลับสู่เมนูก่อนหน้า

【RECORD】:เริ่มการบันทึกแบบ manual

【STOP】: หยุดการบันทึกแบบ manual (แต่จะไม่หยุด timer record และ normal record)



【MENU】:เข้าสู่หน้าต่าง setup และ การตั้งค่า system parameters

【PTZ】:การควบคุม PTZ , กดปุ่มนี้เพื่อเข้าหน้าต่างควบคุม PTZ control จากหน้าดูภาพสดจาก single live view

【EXTRA】 【AUDIO】 【MUTE】 สงวนไว้ใช้ในอนาคต

2.1.2 MOUSE OPERATION

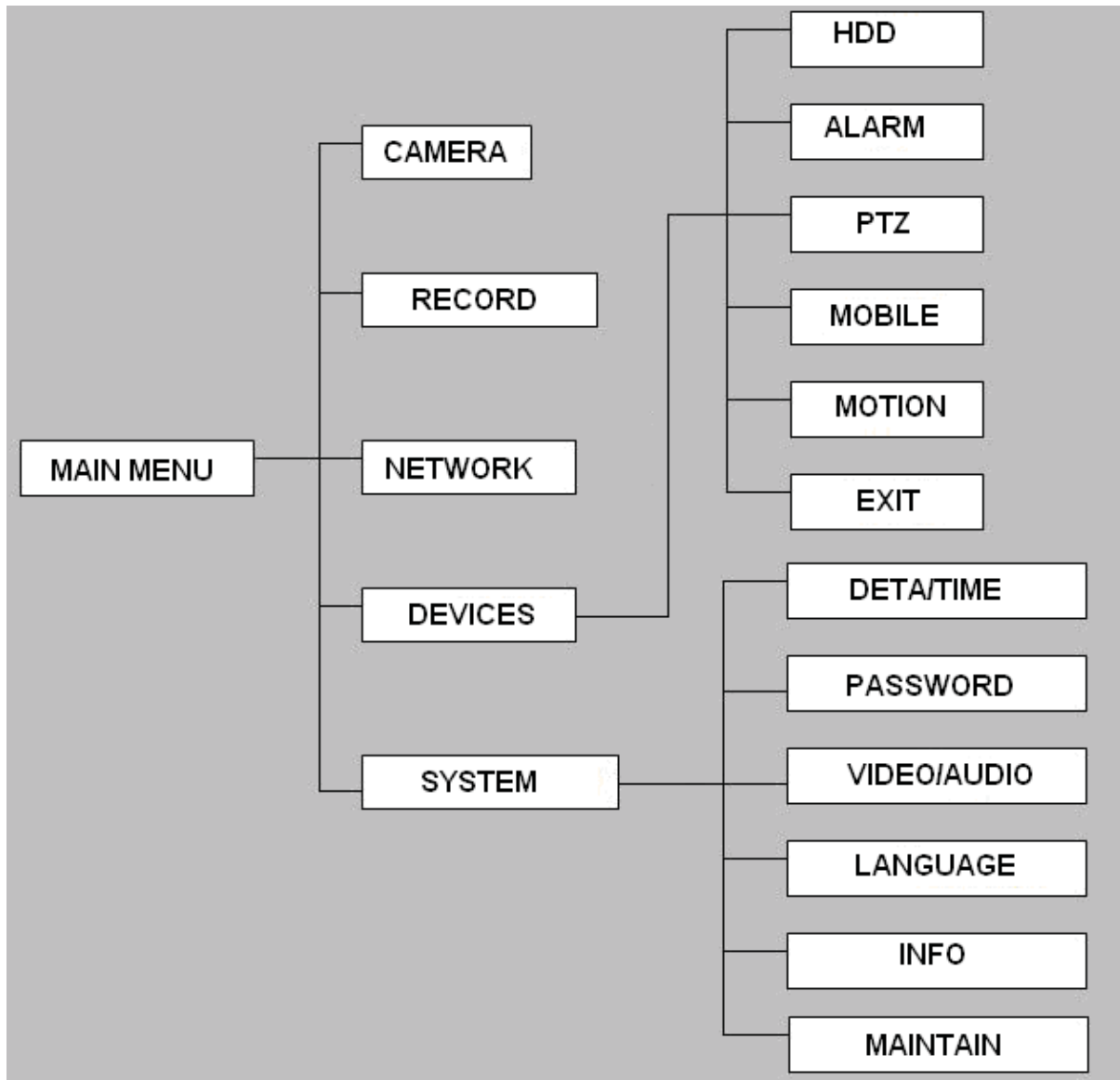
คุณสามารถใช้เมาส์สั่งการเมนูได้แทน Remote controller (ฟังก์ชันการทำงานจะเหมือนกับ PC Windows). ให้เสียบเมาส์ที่ช่อง USB1.1

คลิกขวา	เรียก main menu: คลิกขวาที่ live view.
	ออกจากเมนูปัจจุบัน: หากคลิกปุ่มขวาเพื่อออกค่า settings จะไม่ถูกจัดเก็บ
	ออกจากหน้าต่าง playback: คลิกปุ่มขวาขณะ playback.
คลิกซ้าย	คลิกซ้ายเพื่อเรียกหน้าต่าง setting
	คลิกปุ่มซ้ายเพื่อ zoom in หน้าต่าง live view หรือ playback video ดับเบิลคลิกซ้ายเพื่อออกจาก live view หรือ playback แบบหลายหน้าต่างย่อย
	1. ปรับ Volume, ลี, ตั้งค่า PTZ และ VGA ใช้ตั้ง Volume เฉพาะหน้าต่างเดียว, ควบคุม PTZ และ ปรับลี หากอยู่ในโหมดหลายหน้าต่างย่อยให้คลิกซ้ายเพื่อเลือกหน้าต่าง 2. เครื่องหมายเมื่อคลิกปรับ Volume หรือ ปรับ ลี หรือ VGA border เป็นดังนี้: a. มี  และ  ที่หน้าต่าง PTZ setting เพื่อปรับค่า parameter b. คลิกซ้ายที่ช่องสัญญาณที่ต้องการแล้ว จะเห็นเมนูด้านขวาให้ปรับ volume, คลิก “ X” เพื่อออก c. ปรับลี และ VGA border การทำงานให้ดู วิธีการปรับ volume
	หากเป็นรายการที่มีตัวเลือกที่เฟรม option frame, คลิกซ้ายเพื่อเลือก drop down menu
	คลิกซ้ายที่หน้าต่าง playback >> คือ ไปข้างหน้า, << คือ ถอย, >> คือ เล่นแบบซ้ำๆ, > คือ เล่นทีละเฟรม, > means คือ เล่นแบบปกติ, X คือ ออก

<p>คลิกซ้าย หรือขวา</p>	<p>1. ที่ input frame, คลิกซ้าย หรือ ขวา เพื่อ activate คีย์บอร์ด คลิกขวาเพื่อสลับภาษาจีน และ ภาษาอังกฤษ ตัวเลข สัญลักษณ์ ภาษาอังกฤษสามารถป้อนได้ด้วยการคลิกเมาส์</p> <p>2. ตัวอักษร Pinyin สามารถใส่ได้โดย คีย์บอร์ด softkeyboard เมื่อเลือกใช้ภาษาจีน วิธีใช้งานจะเหมือน IR remote controller คุณสามารถใช้ปุ่ม ซ้าย/ขวา เพื่อเลื่อนหน้า ขณะค้นหาอักษร Pinyin/Chinese</p> <p>3. การใส่ตัวเลข, คลิกขวา คีย์บอร์ดเสมือนจะถูกเรียก ให้เลือกตัวเลขที่ต้องการ</p>
<p>ลากเมาส์</p>	<p>1. กดปุ่มซ้ายเพื่อย้ายเมาส์ให้สามารถปรับค่า Volume, สี, หน้าต่าง VGA border และ พารามิเตอร์ต่างๆถูกแสดงเอง</p> <p>2. ที่หน้าต่าง Motion Detection setting, คุณสามารถใช้ปุ่มซ้ายลากกำหนดพื้นที่สำหรับ ตรวจจับการเกิดความเคลื่อนไหว</p>

2.1.3 MENU TREE

คุณสามารถควบคุม DVR ด้วยเมนูต่างๆดังนี้



2.2 SYSTEM OPERATION

2.2.1 USER LOGIN

1. START-UP

ต่อหม้อแปลง DC19V/3A เข้ากับ DVR เมื่อเปิดเครื่อง DVR, ไฟ LED 【POW】 จะสว่าง จะมีรูปภาพ 16 รูปแสดงที่หน้าจอ หากมีการตั้งค่าการบันทึก หรือ ตั้งเวลาการบันทึก ระบบจะบันทึกอัตโนมัติ ไฟ LED จะสว่างเอง

ข้อควรจำ: ถ้าไม่มี HDD หรือ เครื่องอ่าน HDD ไม่ได้, เครื่องจะแสดง สัญลักษณ์ 【H】 ให้ฟอร์แมต เมื่อติดตั้ง HDD เป็นครั้งแรก

2. SYSTEM LOGIN

เมื่อคุณ login, จะพบหน้าต่างดังข้างล่างถ้ามีการตั้ง password ไว้, ให้ใส่ device ID และ user password แล้วกด 【Apply】

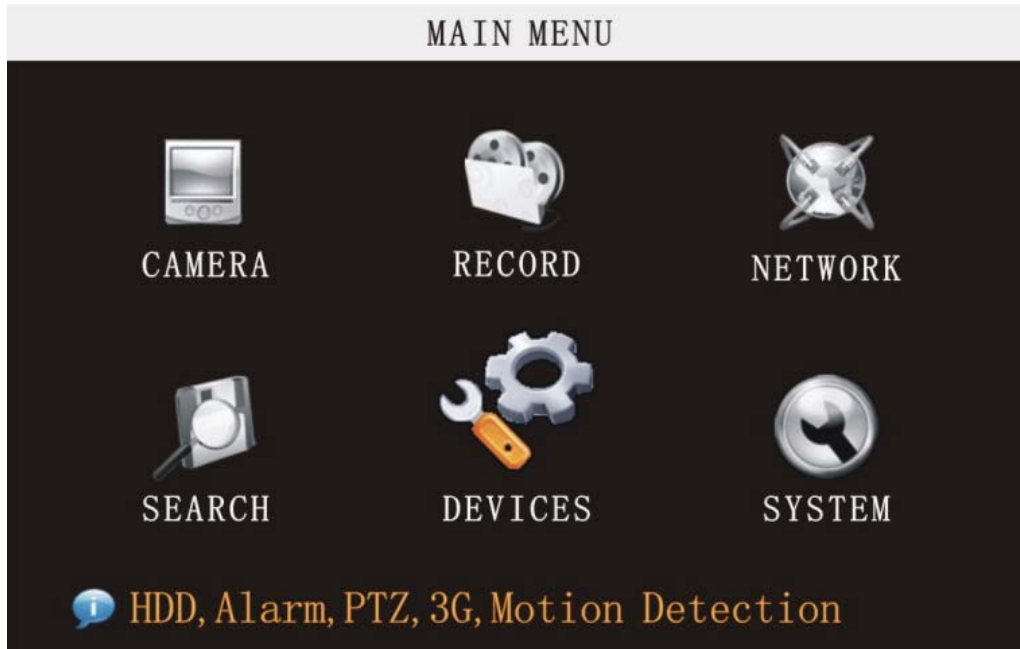
ข้อควรจำ: เพื่อให้สามารถจัดการอุปกรณ์สะดวก ให้ตั้งค่า user password และเปลี่ยน device ID เมื่อ setup ครั้งแรก คุณสามารถตั้งค่า User และ admin password, Administrator สามารถทำได้ทุกอย่าง, operator จะถูกจำกัดสิทธิ์ให้สามารถดูภาพ และ playback, โปรตเปลี่ยน unit ID และ default password เพื่อความปลอดภัย

DEVICE ID: คุณต้องใส่ unit ID ให้ถูกต้อง

PASSWORD: ใส่ admin password หรือ user password

2.2.2 GUI OPERATION

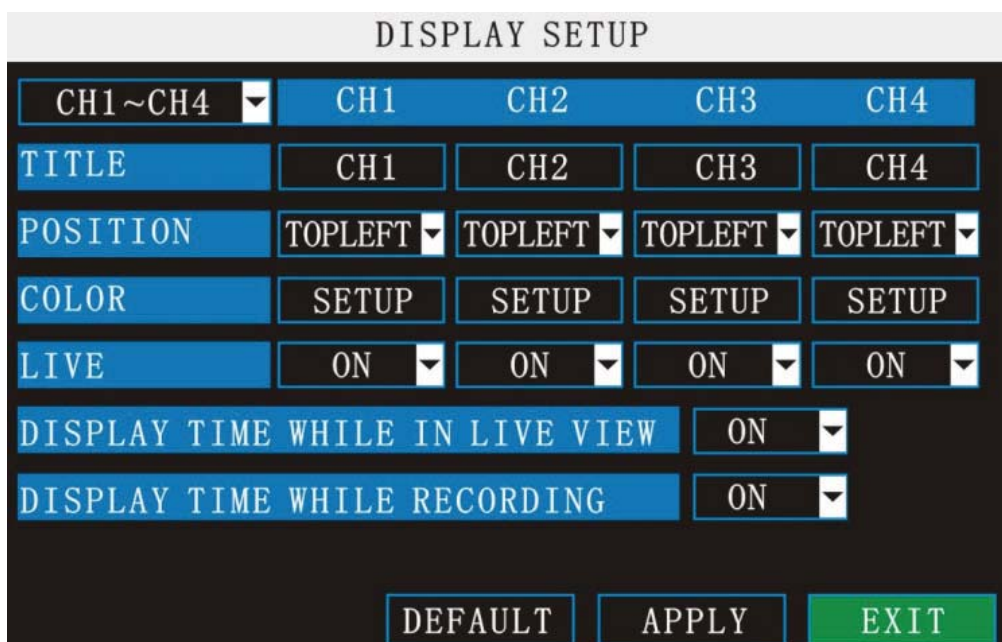
เมนูหลักประกอบด้วย “CAMERA”, “RECORD”, “NETWORK”, “SEARCH”, “DEVICES”, และ “SYSTEM”



ข้อควรจำ: หลังจากปรับค่าต้องกด “ APPLY” การตั้งค่าต่างๆจะถูกจัดเก็บ แต่หากกด Exit จะไม่มีการจัดเก็บ สำหรับ DVR รุ่นนี้เมื่อย้ายเมาส์วางที่หน้าไอคอนใดๆ จะมีข้อความอธิบายแสดง

2.2.2.1 CAMERA

เลือกไอคอน **【CAMERA】** (เมื่อเลือกรายการIconจะมีแถบสี), แล้วกด **【Enter】** เพื่อเข้าหน้าต่างตั้งค่า

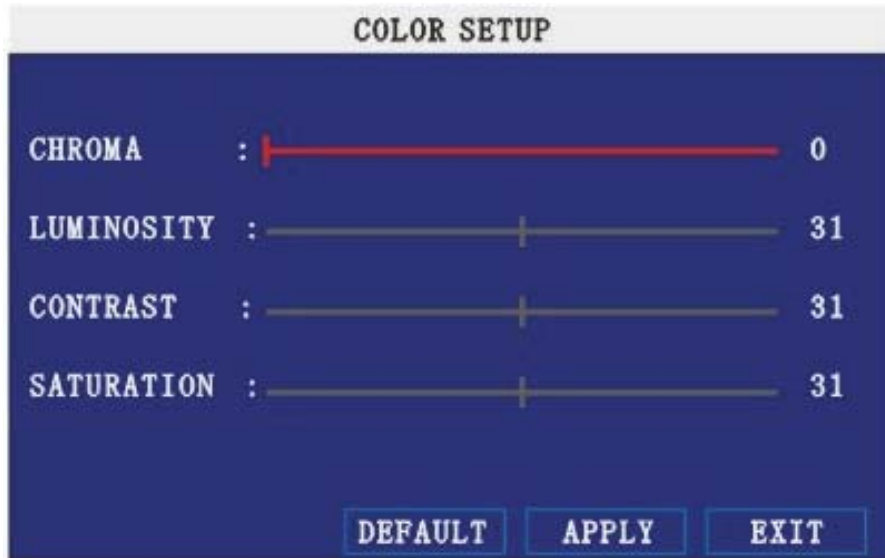


CH1~CH4: ใช้เลือก CH1~CH4, CH5~CH8, CH9~CH12, CH13~CH16

NAME: กด **【Enter】** เพื่อเข้าหน้าต่างตั้งค่า

POSITION: กด **【Enter】** เพื่อเลือกตำแหน่งวางช็อกกล่อง มี5ตัวเลือก: bottom left, top left, bottom right, top right และ OFF

COLOR: กด **【Enter】** เพื่อเรียกเมนูตั้งค่าสี ดังนี้:



กด **【Enter】** หรือปุ่ม **【+】** **【-】** หรือลากด้วยเมาส์เพื่อตั้งค่าสี, รวมทั้ง chroma, brightness, contrast และ saturation, ให้กด **【APPLY】** เพื่อบันทึกค่า

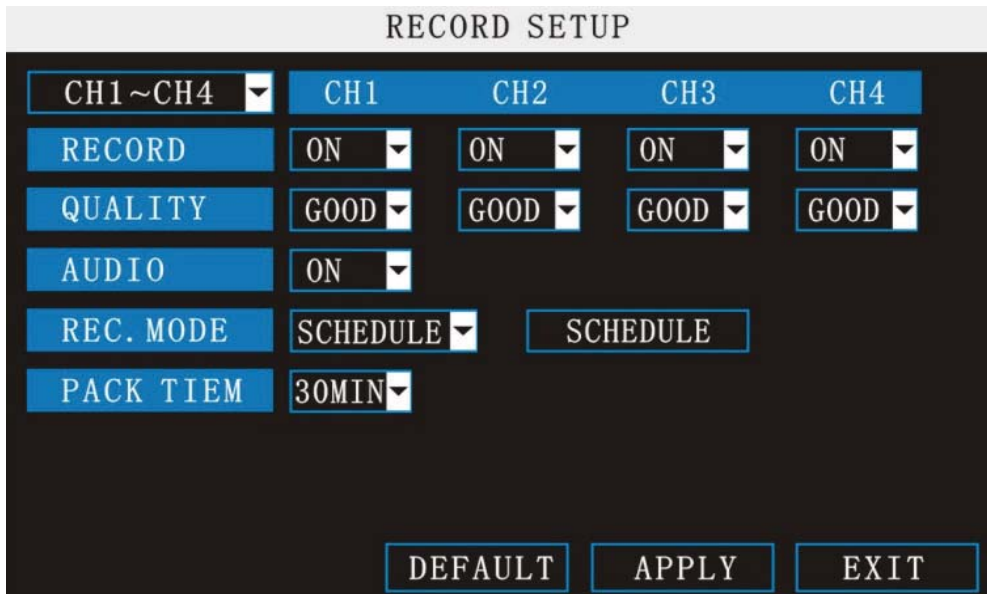
LIVE: ON: ช่องสัญญาณนั้นๆจะสามารถดูในโหมด live mode ได้, OFF หมายความว่าดูไม่ได้

DISPLAY TIME WHILE IN LIVE VIEW: ON:ให้แสดงเวลาขณะ live view, OFF ไม่แสดง

DISPLAY TIME WHILE RECORDING: ON:ให้แสดงเวลาขณะRecord view, OFF ไม่แสดง

2.2.2.2 RECORD SETUP

Move the cursor to **【RECORD】** (Icon highlighted when selected) ,press **【Enter】** to enter into the setting interface. Press **【Confirm】** and enter into the setup interface, and you can use direction keys and cursor to change the options.



CH1~CH4: you can select the CH1~CH4, CH5~CH8, CH9~CH12, CH13~CH16 here.

RECORD: ON: Means the channel enable for recording.

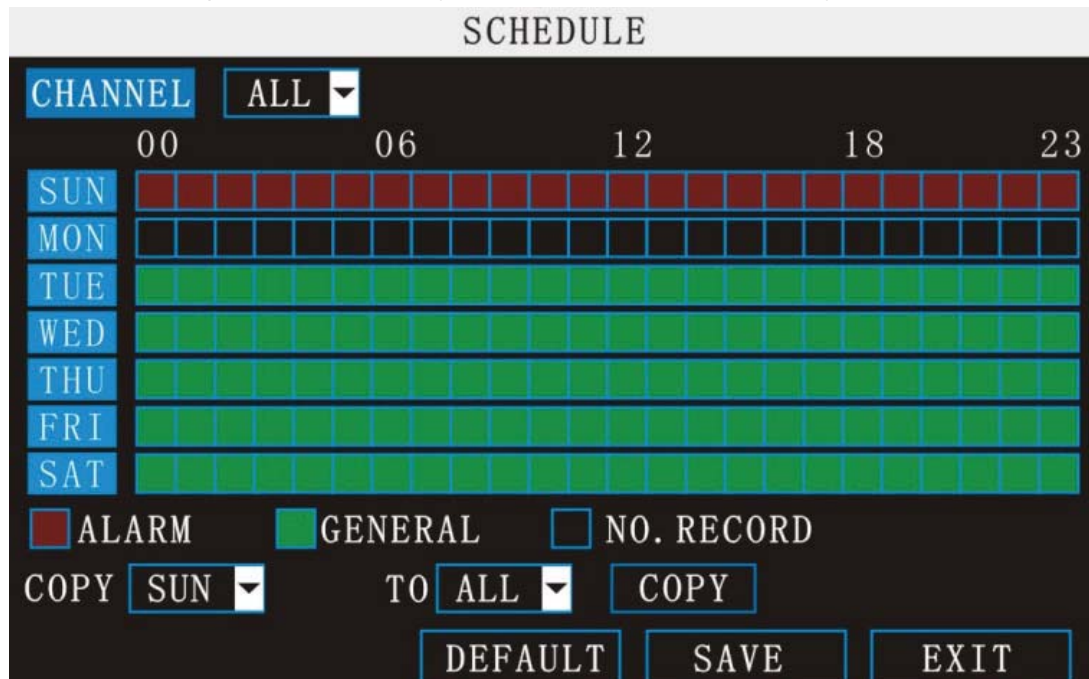
QUALITY: There are BEST, FINE and NORMAL three options, corresponding HIGHEST, HINGAND NORMAL data stream standard

AUDIO: ON: Means enable the audio recording for all channels, OFF: Means disable audio recording

REC.MODE:

POWER UP: Means the device will start recording when it startup.

TIME: Recording as the schedule, you can setup the schedule as you want as follow.



CHANNEL: You can select all channels or just one channel to setup schedule.

WEEKLY: You can setup each as you want. There are ALARM, NORMAL, NO REC three modes, if you select this, there will have a √ in the frame, that means when you select the period of the day it will record as this mode, and you can just setup one day, then copy the setting to all

other days. Different color means different record mode: Red means alarm record, green means normal record, grounding means no record.

PACK TIME: There are 15min, 30min, 45min, 60min four options, that means it will pack as the mode you selected

Scroll to **APPLY** and press **ENTER** to save the new settings.

2.2.2.3 NETWORK SETUP

Move the cursor to [NETWORK SETUP] (icon highlighted when selected), and press **【Enter】** to enter into setting interface .

TYPE: There are PPPOE, DHCP & Static three options.

● **STATIC**

Select [Static] in the type, and press [Enter] to enter into the interface as followings

NETWORK SETUP	
TYPE	STATIC ▾
PORT	09000
WEB PORT	00080
IP ADDRESS	192.168.015.141
NETMASK	255.255.255.000
GATEWAY	192.168.015.001
DNS	202.096.134.133
DDNS SETUP	
<div style="display: flex; justify-content: space-around;"> DEFAULT APPLY EXIT </div>	

PORT: For video transmission via IE.

WEB PORT: setup the port of IE browser via HTTP.

IP ADDRESS: setup the IP address, and press [Enter] or number keys to change the value.

NETMASK: press [Enter] or number keys to change the value.

GATEWAY: press [Enter] or number keys to change the value.

● **DHCP**

Select the DHCP, and enter into the interface as followings.

NETWORK SETUP	
TYPE	DHCP
PORT	09000
WEB PORT	00080
DNS	202.096.134.133
DDNS SETUP	
DEFAULT APPLY EXIT	

PORT: the communicate port between PC and DVR, recommend use default port.

WEB PORT: setup the port of IE browser via HTTP.

ข้อควรจำ: when you setup the net mode as DHCP, the router will arrange a dynamic IP for DVR.

● **PPPOE**

Select the PPPOE, and enter the interface as followings

NETWORK SETUP	
TYPE	PPPOE
PORT	09000
WEB PORT	00080
PPPOE NAME	s*****@***.gd
PASSWORD	*****
DNS	202.096.134.133
DDNS SETUP	
DEFAULT APPLY EXIT	

MEDIA PORT: the communicate port between PC and DVR, recommend use default port

WEB PORT: setup the port of IE browser via HTTP.

PPPOE username and password: fill the username and password of the internet service offer, and apply it and reboot the system. After rebooting, the device will save it and set the PPPOE as default network type. If succeed, the IP address will be automatically config as dynamic IP of WAN.

DDNS SETUP

DDNS	ON
SERVICE	3322
HOST NAME	cqrm****o.oicp.net
USERNAME	cqrm****o
PASSWORD	*****

DDNS: There are [ON/OFF], and if there is a DDNS service, please setup it as ON.

SERVICE: There are 3 services to select, 3322, dyndns, and perfecteyes.

HOST NAME: Input the name of the host server.

USERNAME: Input in the name of the user.

PASSWORD: Input the password for DDNS.

2.2.2.4 SEARCH

Move the cursor to **SEARCH** (Icon highlighted when selected), press **Enter** to enter into the setting interface.

DATE: You can adjust the checking date and time, press **Enter** input the number directly to adjust the year, month, date. After finishing the time setting, move the cursor to "SEARCH" and press "APPLY", can see the recording status of this date. As follow:

RECORD SEARCH

ALL 2008-12-11 09:35

VIDEO STATE

MAR.	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

9Th

00	01	02	03	04	05	06	07
08	09	10	11	12	13	14	15
16	17	18	19	20	21	22	23

Please select the channel

Instruction:

1. **MONTH:** It will show all the recording status in this month. Green means normal recording, Red means alarm recording, Grounding means no recording. Click any date in this frame can

search the recording status of that day, the searching result will be showed in the below date frame.

2. DAY: It will show all the recording status in this day, you can playback the record file in this period via click the corresponding period.

PLAY: You can press **【Enter】** input number directly to setup playback time. After setting, move the cursor to “PLAYBACK”, and then press”APLLY”to enter into video playback of that time. Also you can select any period of time in the video status frame after searching,press”APLLY”to enter into the video playback of this period.

FILE LIST: Enter into the video file list interface of the selected date.

LOG SEARCH: Enter into the log searching interface.

1. FILE LIST

Setup the searching date, after pressing “SERACH”,move the cursor to “FILE LIST” and press”APPLY”to enter into the video file list of this date.

FILE LIST

TYPE						FIRST
ALL						PREV.
CH	TIME	SIZE	TYPE	BAK		NEXT
1	00:00:00-00:30:00	97.4M	NORM.	<input type="checkbox"/>		LAST
2	00:00:00-00:30:00	97.4M	NORM.	<input type="checkbox"/>		ALL
3	00:30:00-01:00:00	97.1M	NORM.	<input type="checkbox"/>		INVERSE
4	00:30:00-01:00:00	97.3M	NORM.	<input type="checkbox"/>		BACKUP
5	01:00:00-01:30:00	97.3M	NORM.	<input type="checkbox"/>		EXIT
6	01:00:00-01:30:00	97.0M	ALARM	<input type="checkbox"/>		

i select all files on the page

Then you can select four channels as you want to playback, because 16CH DVR support 4channels playback at the same time.




Instruction:

1. **【FILE LIST】** ,“CHANNEL”is the recording file which belong to which channel, “SIZE” is display the size of this file (Unit:MB) , “TYPE” is display the type of recording file, there are two types: normal and alarm,press“BACKUP”button can export the selected files to USB storage;
2. After moving the cursor up and down and select the files, and press **【APPLY】** to enter into playback interface. If the all channels have recording files, it will be playback all windows at the same time.
3. If setup as “on” in the **【RECORD TIME】** in **【BASIC SETUP】** , it will show the date/time when playback record file; If setup as “off”it will not display time.
4. When playback, can press **【SLOW】** to play slowly; press **【FORWARD】** and **【REVERSE】** to speed、reverse play; also can press **【PAUSE/STEP】** to pause and frame by frame play; Press **【Exit】** to exit from playback and return to the former menu;
5. When finished playback files, it will return to the file list interface.

2. LOG SERCH

Move the cursor to “LOG SERACH” and press”APPLY”to enter into the log file list of DVR, as follow window.

LOG LIST					
TYPE	INFO	TIME	TRIGGER	VIDEO	
ALARM	MD ALARM	08-03-09	01:59	YES	FIRST
ALARM	MD ALARM	08-03-09	01:59	YES	PRE.
ALARM	MD ALARM	08-03-09	01:59	YES	NEXT
ALARM	MD ALARM	08-03-09	01:59	YES	LAST
ALARM	MD ALARM	08-03-09	01:59	YES	EXPORT
ALARM	MD ALARM	08-03-09	01:59	YES	EXIT

 Channel 01:mition detection alarm

INFO: means the alarm type.

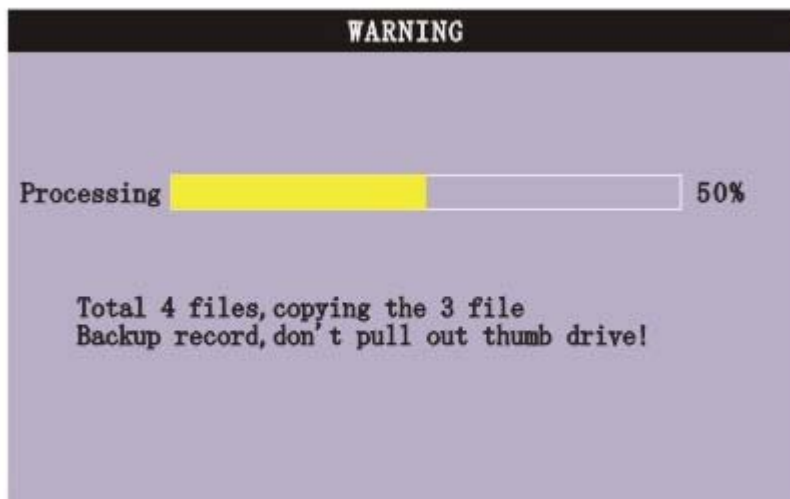
TRIGGER: means the alarm triggered time.

VIDEO: means whether the log has corresponding video file.

3. BACKUP

You can use USB for backup, should insert USB device into the USB2.0 port before backup files. And it is support USB OTG.

You can select the recording file by direction keys or **【+】**、**【-】** , and press **【Enter】** means selected OK (There is a “√” at the end of the selected recording files) and press **【Enter】** again the “√” will disappear that means cancel the select, we can start export the recording files after selecting, and press **【BACKUP】** to start to backup, as follow:

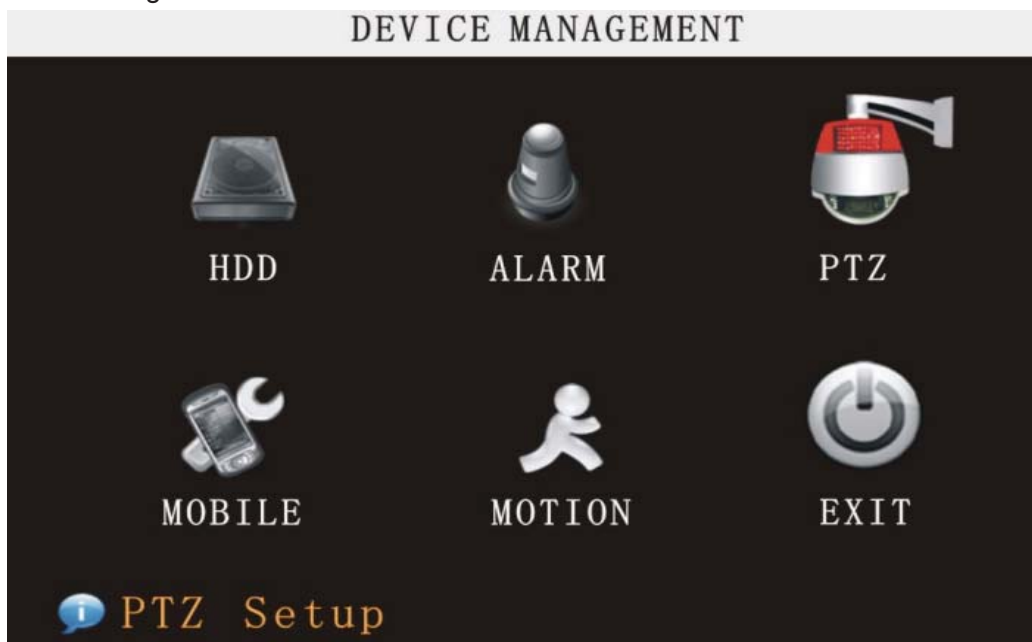


Instruction:

1. When the space in backup device less than recording file, the system will prompt “Space no enough”.
2. You can move USB device directly when backup finished.

2.2.3 DEVICES SETUP

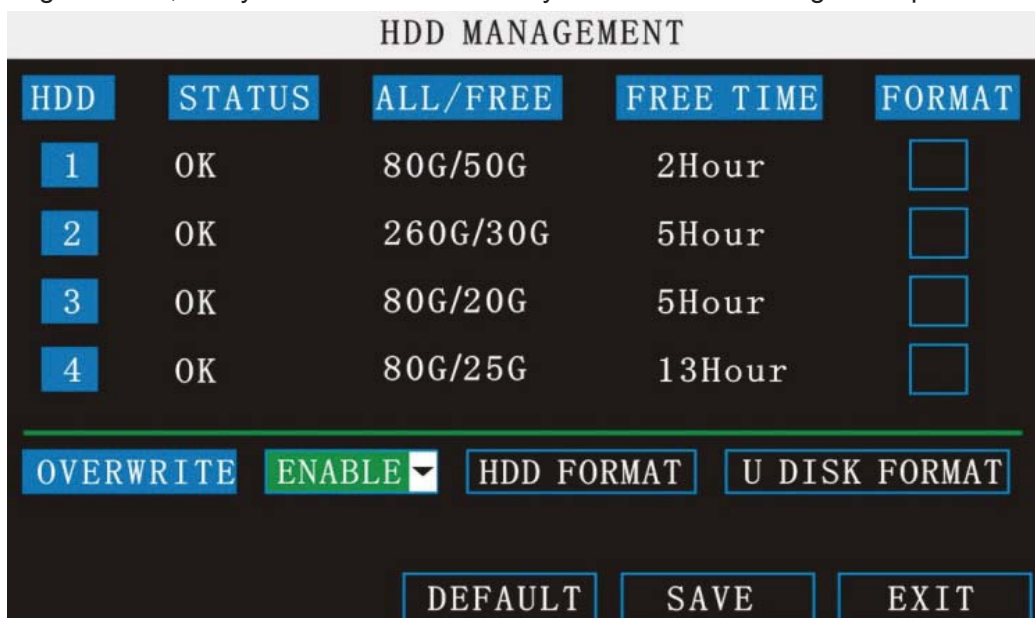
Move the cursor to **【DEVICES SETUP】** (Icon highlighted when selected) ,press **【Enter】** to enter into setting interface.



Advanced Features include HDD, ALARM, PTZ, MOBILE and MOTION DETECT.

2.2.3.1 HDD MANAGE

Move the cursor to **【HDD】** (Icon highlighted when selected) ,press **【Enter】** to enter into the setting interface, and you can use direction keys and cursor to change the options.



HDD STATUS: There status is ok means the HDD is ok. If HDD can not run normally (including unformat and no HDD), there is a **【H】**display on video live view, 16CH DVR can support 4 HDD at most, so you can select the HDD you want to format here.

OVERWRITE:ENABLE: means when HDD space less than 4G, it will delete HDD earliest recording file, and it will stop deleting when the space is 10G; **DISABLE:** means when HDD

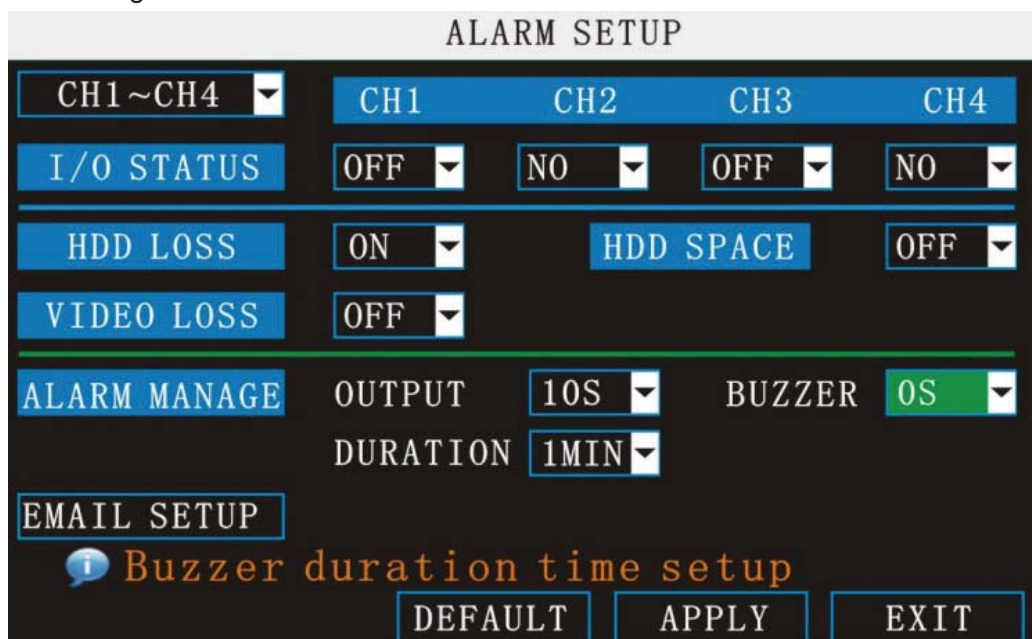
space less than 500M it will stop recording, and an prompt will display in live view “please shutdown and replace HDD”

HDD FORMAT: Move cursor there to select device and press **【APPLY】** to start formatting.

U DISK FORMAT: format the external thumble drive.

2.2.3.2 ALARM SETUP

Move the cursor to **【ALARM SETUP】** (Icon highlighted when selected) ,press **【Enter】** to enter into setting interface.



CH1~CH4: you can select the CH1~CH4, CH5~CH8, CH9~CH12, CH13~CH16 here.

I/O ALARM: Each channel has an I/O status, that is, when an alarm triggered, it will activate the corresponding channel to start alarm recording.

N.O: indicate I / O input level from high to low effective

N.C: indicate I / O input level from low to high effective

HDD LOSS:ON means it will trigger a alarm if there is no HDD, and it will display an **【H】**

On the bottom left of channel 1 in the live view

HDD SPACE: ON: If the space less than 500M, there is a ข้อควรจำ in live view: No enough space, please change HDD after shutdown.

VIDEO LOSS: ON: when one channel has no video input, it will display “video loss”in live view.

ALARM MANAGE: There are alarm output, buzzer and post REC three items.

OUTPUT: when an alarm triggered, the alarm output time will be:

0 second、 10 seconds,20 seconds,40 seconds and 60 seconds

- **BUZZER:** buzzer calling time setup when alarm triggered: 0 second,10 seconds,20 seconds,40 seconds and 60 seconds

- **POST REC.:**post recording time setup: 30 seconds,1 minute,2 minutes and 5 minutes

EMAIL SETUP: not finished yet.

2.2.3.3 PTZ SETUP

Move the cursor to **【PTZ SETUP】** (Icon highlighted when selected) ,press **【Enter】** to enter into setting interface, you can setup the parameters for each channel separately.

CH1~CH4: you can select the CH1~CH4, CH5~CH8, CH9~CH12, CH13~CH16 here.

PROTOCOL: select the protocol of different PTZ, there are two protocols to switch, and the default is Pelco-D

BAUD RATE: select the different baud rate for your PTZ, there are 1200, 2400, 4800, and 9600

DATA BIT: there are 5,6,7,8 options to select, default setting is 8.

STOP BIT: there are 1 and 2 to select, the default setting is 1.

VERIFY: there are None/Odd/Even/Mark/Space to select, the default setting is none.

ADDRESS: Fill the code of respective PTZ

PTZ SETUP				
CH1~CH4 ▾	CH1	CH2	CH3	CH4
PROTOCOL	Pelco-D ▾	Pelco-D ▾	Pelco-D ▾	Pelco-D ▾
BAUD RATE	9600 ▾	9600 ▾	9600 ▾	9600 ▾
DATA BIT	8 ▾	8 ▾	8 ▾	8 ▾
STOP BIT	1 ▾	1 ▾	1 ▾	1 ▾
PARITY	ODD ▾	ODD ▾	ODD ▾	ODD ▾
ADDRESS	001	001	001	001
		DEFAULT	APPLY	EXIT

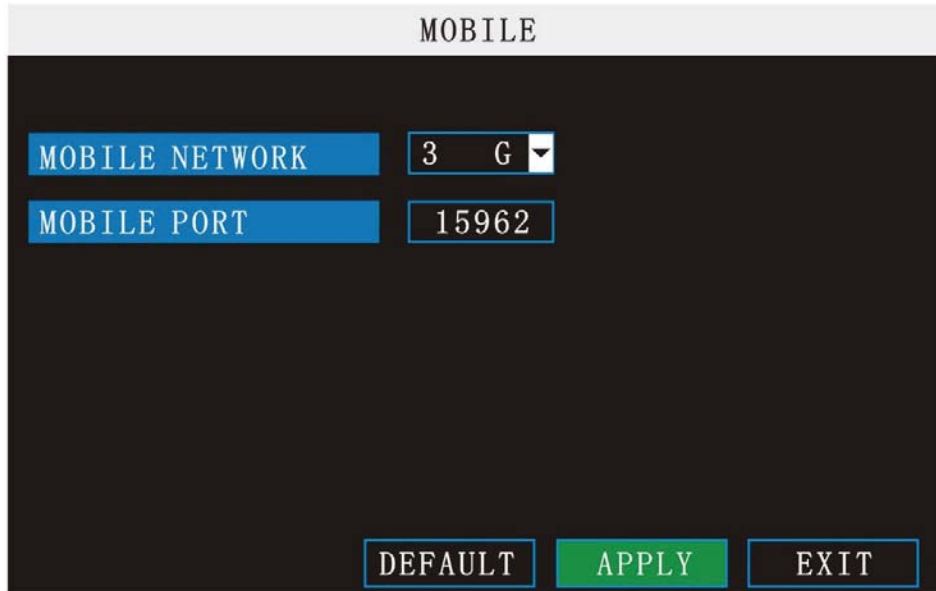
2.2.3.4 SYSTEM INFO

Move the cursor to **【SYSTEM INFO】** (Icon highlighted when selected) ,press **【Enter】** to enter into setting interface, at this interface mainly display system hardware features and firmware version, include : Firmware version, MAC address and serial number.

SYSTEM INFO	
SERIAL NUMBER	0003000022
FIRMWARE VERSION	T070103
MAC ADDRESS	00-11-22-33-44-55
EXIT	

2.2.3.5 MOBILE

Move the cursor to **【MOBLE】** (Icon highlighted when selected) ,press **【Enter】** to enter into setting interface.



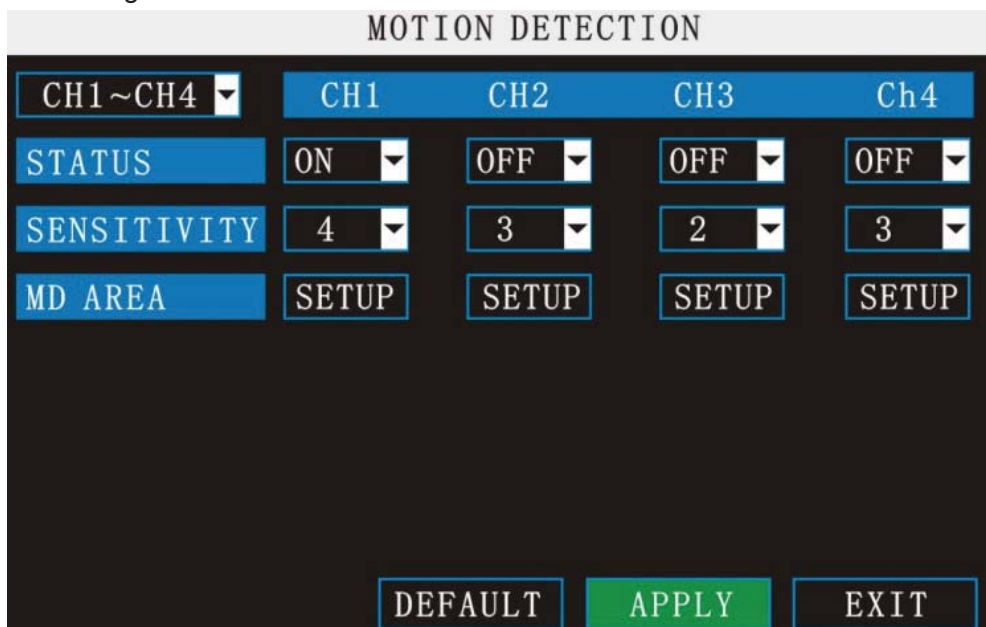
CHANNEL SELECTION: select the channel for mobile view, and press [Enter] to switch different channels.

MOBLESS LAN: Select different mobile network from the options of 3G, 2.5G and 2.75G, and press [Enter] to switch different network.

PORT: the port for mobile view, you should open the port in the router for mobile view.

2.2.3.6 MOTION DETECT

Move the cursor to **【MOTION DETECT】** (Icon highlighted when selected) ,press **【Enter】** to enter into setting interface.



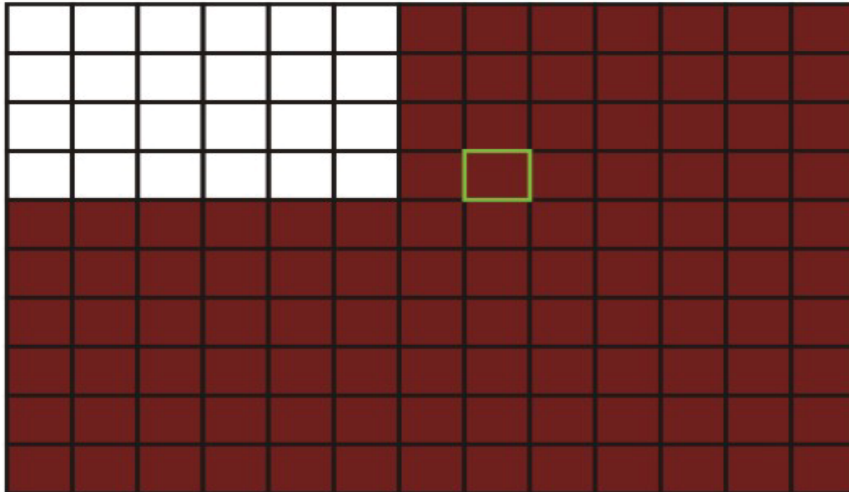
CH1~CH4: you can select the CH1~CH4, CH5~CH8, CH9~CH12, CH13~CH16 here.

STATUS: Each channel has corresponding channel switch, press **【Enter】** to turn on or turn off

the motion detection for each channel..

SENSITIVITY:Each channel has corresponding sensitivity setting, including four standards high,higher,medium and low, press **【Enter】** key to switch

MD AREA: each channel has corresponding regional motion detecting setting, move the cursor to corresponding **【setting】** ,press **【Enter】** to enter regional setting interface, red area means it have activated motion detection, transparent block means it have not activated motion detection.



Move the direction key on remote control to make cursor move in the small pane, green frame means the cursor has moved to this pane, press **【Enter】** to select or cancel motion detection of this small pane, when setup finished, press**【exit】**to back to MD setup interface, it will save automatically.

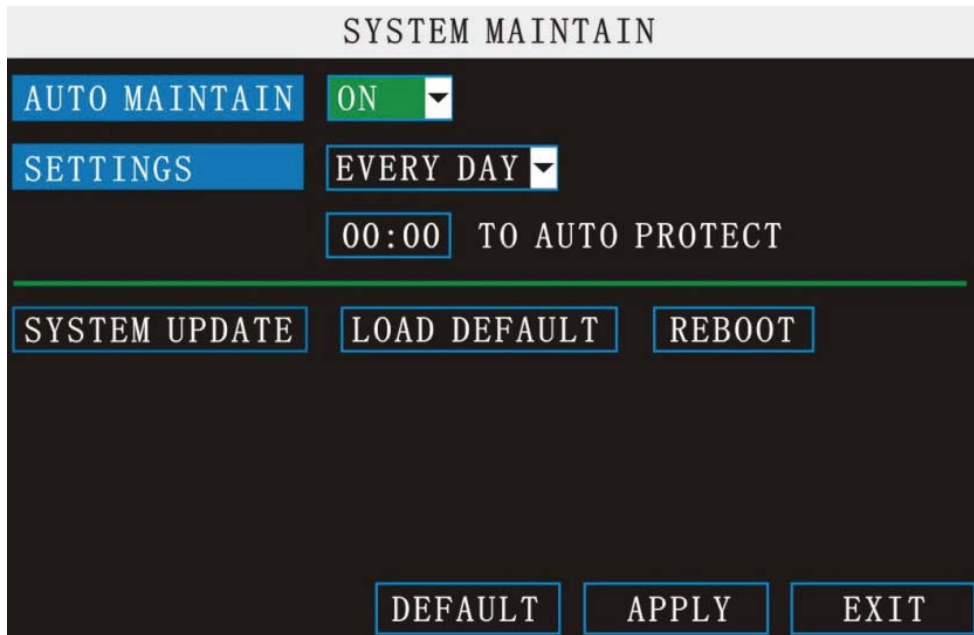
ข้อควรจำ:

IR Operation: press [Menu] key to select or cancel the entire screen.

Mouse operation: click left and drag the frame to setup the region for motion detection.

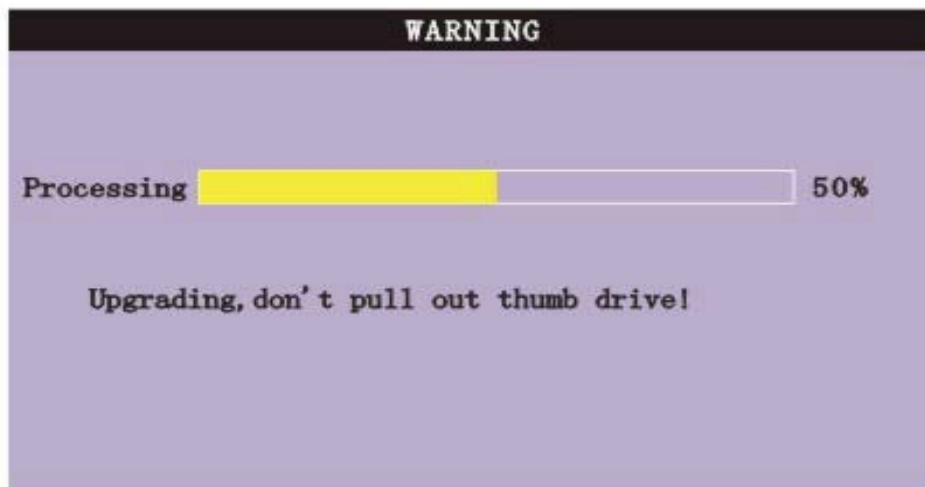
2.2.3.7 SYSTEM MAINTAIN

Move the cursor to **【SYSTEM MAINTAIN】** (icon highlighted when selected), and press **【Enter】** to enter into system maintain setup interface.



AUTO MAINTAIN: When switch is on, you can setup the time for device to restart.

SYSTEM UPDATE: Copy the update file to the dvrupgrade folder in the root directory of the thumb driver, and insert it into USB 1.0, then press [Enter] to upgrade the firmware, and it will display the process of the system upgrading, as following:



LOAD DEFAULT: Restore all the settings as the factory setting.

REBOOT: means restart the device.

2.2.3.8 EXIT

Move the cursor to **EXIT** (Icon highlighted when selected) ,press **Enter** to back to main menu.

2.2.4 SYSTEM SETUP

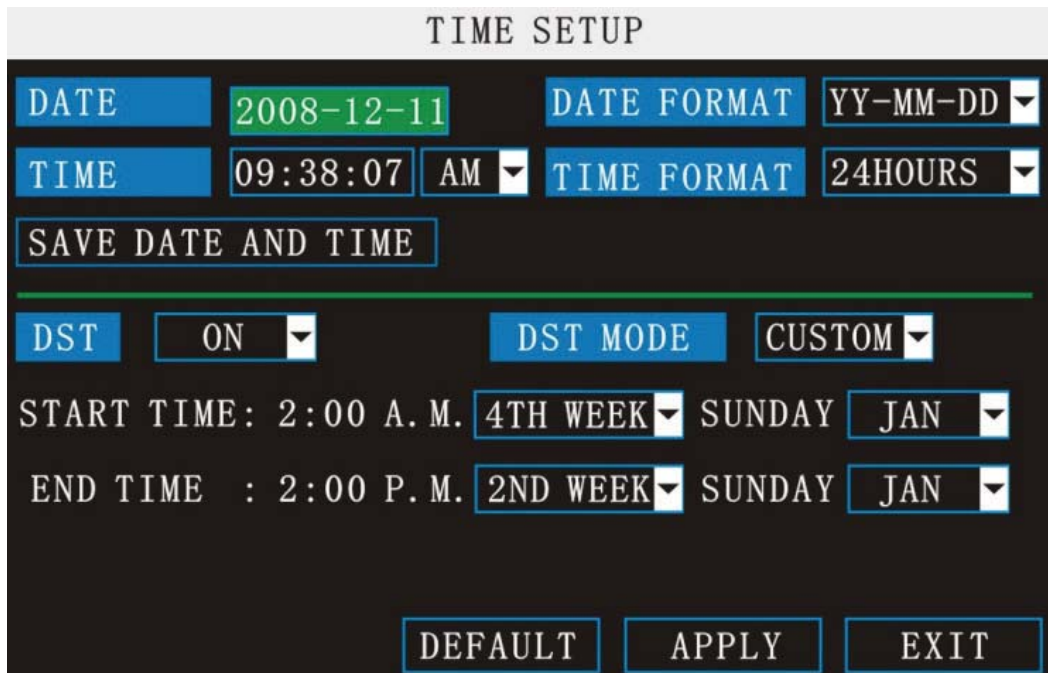
Move cursor to select “SYSTEM SETUP” (The big icon means selected) and press **【ENTER】** to enter into the system language setup interface.



System setups include time/date, password, video/audio, language, info and maintain six options.

2.2.4.1 DATE/TIME SETUP

Move cursor to select “date/time” (icon highlighted when selected) and press **【ENTER】** to enter into the date/time setup interface.



DATE: Setup system date via numeric key.

DATE FORMAT: Press ENTER to switch between the date patterns, there are YY-MM-DD and MM/DD/YY two options.

TIME: Setup system time via numeric key.

TIME FORMAT: Press ENTER to switch between the date patterns, there are 12 HOURS and 24 HOURS two options.

ข้อควรจำ: You must move the cursor to the **【MODIFY TIME AND DATE】** and press **【APPLY】** to save it, otherwise it won't save the modify if you exit this interface.

DST: DST settings, you can setup DST as you want here.

2.2.4.2 PASSWORD

Move the cursor to **【PASSWORD】** (Icon highlighted when selected), press **【Enter】** to enter into the setting interface.

PASSWORD SETUP

DEVICE ID	000000		
PASSWORD ENABLE	ENABLE		
USER PASSWORD	*****	RE-ENIER	*****
ADMIN PASSWORD	*****	RE-ENIER	*****
NETWORK PW CLEAN:	<input type="checkbox"/>		

DEVICE ID: Press number key to setup the unite ID

PASSWORD: Press **【APPLY】** to start or close user password. If it is “ENABLE”, you must input password when log in, otherwise, you can enter into main Manu directly.

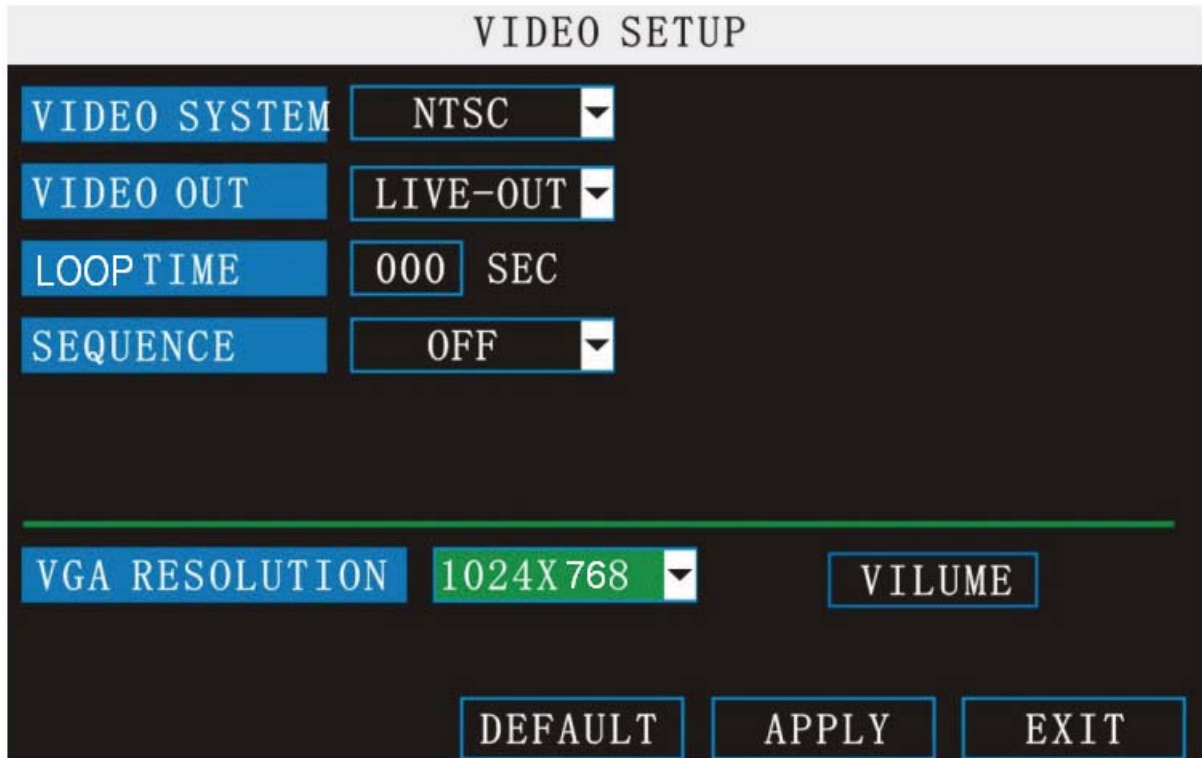
USER PASSWORD: Press number keys to setup user password.

ADMIN PASSWORD: Press press number keys to setup admin password.

NETWORK PW CLEAN: Means the password for IE, if you select it, you can reset the IE password, the default password is blank.

2.2.4.3 VIDEO/AUDIO SETUP

Move the cursor to **【VIDE/AUDIO SETUP】** (Icon highlighted when selected), press **【Enter】** to enter into setting interface.



VIDEO SYSTEM: press **【Enter】** to switch camera system, has PAL and NTSC two options

VIDEO PORT: there are two options: live-out and spot-out, correspond with the two video out on the back panel of DVR, live out means it will display the channel loop function, and spot-out means just display the live view.

DWELL TIME: the interval for channel loop function

SEQUENCE: you can setup the channel sequence as you want here.

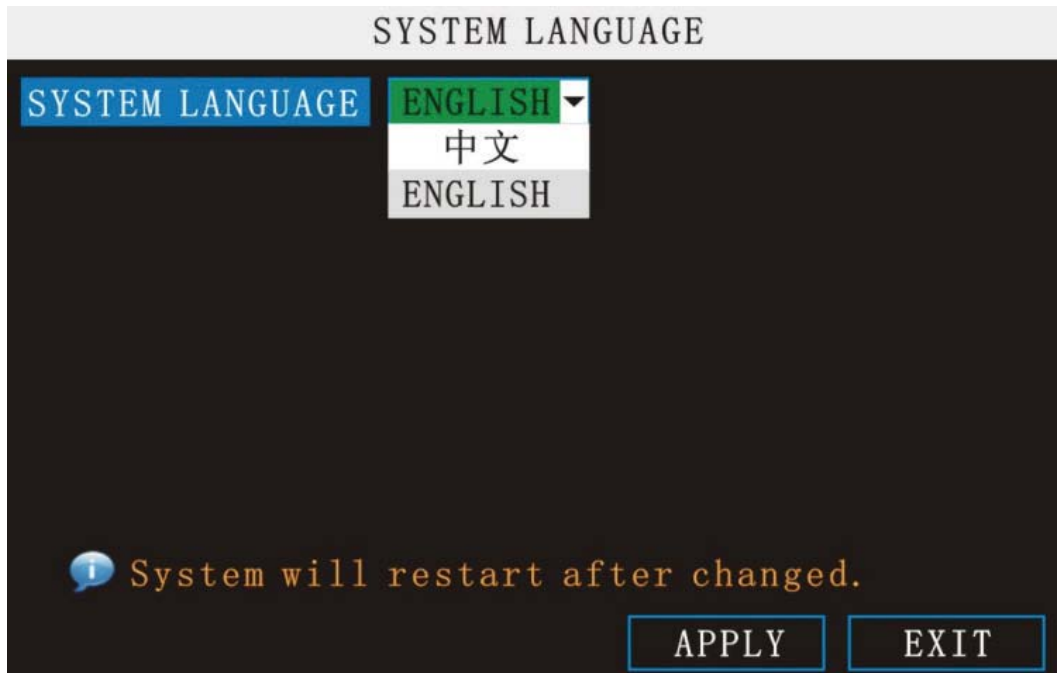
VGA RESOLUTION: press **【Enter】** key to setup the VGA resolution, there are 1024*768、 800*600 two options.

VOLUME: move cursor to **【VOLUME SETUP】** ,press **【Enter】** to enter into volume setup interface, press number keys or directly drag the cursor to adjust volume.

ข้อควรจำ: it will restart if you modify the video system or VGA resolution.

2.2.4.4 LANGUAGE

Move cursor to select “system language” (The highlighted when selected)and press **【ENTER】** to enter into the system language setup interface.



System language have Chinese and English two options, you can setup the language you want in here.

ข้อควรจำ: The device will restart when you setup system language success.

3 IE OPERATION

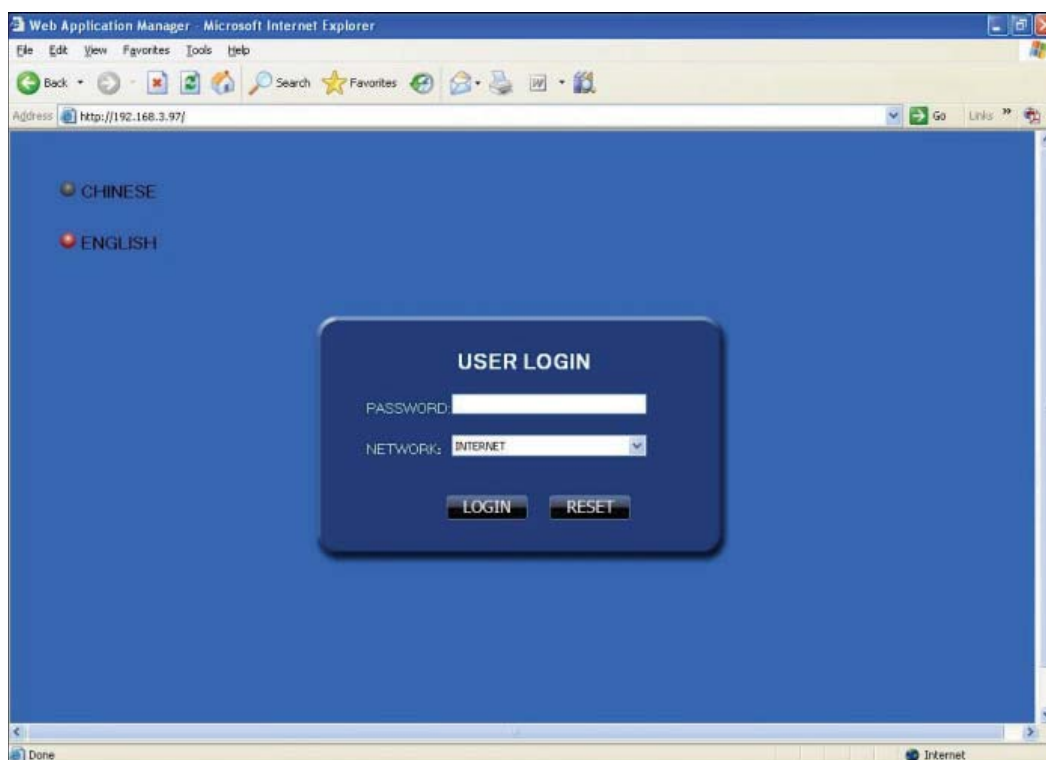
3.1 FEATURE

Through the IE browser of OS and install the software, you are able to do the network operation remotely, which is much more convenient. DVR support C/S, B/S, and visit in LAN and WAN, also support IP and domain name visiting.

ข้อควรจำ: Operating system Windows XP, Windows Vista and Browser IE6.0, IE7.0 is recommended

3.2 USER LOGIN

Input the DVR local IP in IE browser, when changed the port, you should add the port number after IP address, e.g. if DVR local IP is 192.168.3.97 (LAN) and the port is 8088, you should input `http:// 192.168.3.97:8088`. The default port is 8088, and directly input `http:// 192.168.3.97` to access the login interface as following.



Select English interface in the top left side. Input username and password to enter into the system. The username and passport is same as the ones set in DVR.

PASSWORD: Administrator has all authorities, operator has limited authorities who they can only watch, playback, please change the unit No. and default password is blank.


NETWORK: LAN/WAN

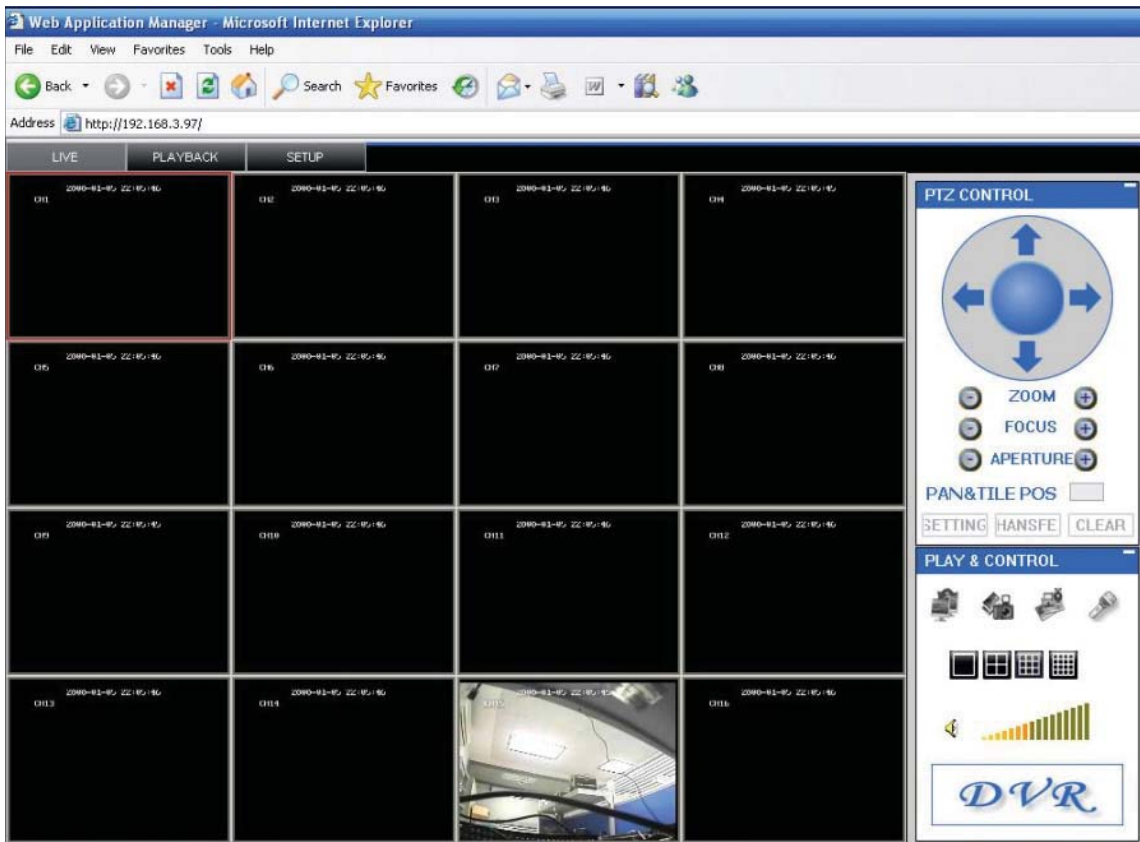
ข้อควรจำ: If you connect the device in WAN, the IP should be a public IP.

3.3 OPERATION INTERFACE

There are Live view, Playback and Setup options in the main interface, please press them to access it.

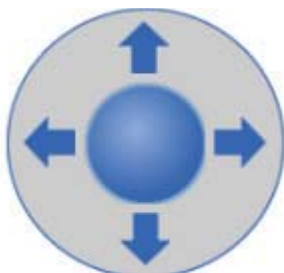
3.3.1 LIVE

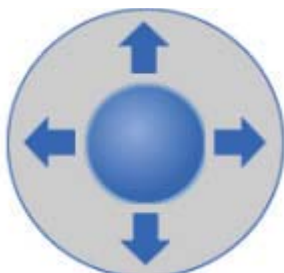
Click  to enter into the interface as followings



3.3.1.1 PTZ CONTROL







Change the focus, preset aperture to control the PTZ.



Click  to up/down/left/right control movement of the PTZ. When hold on the one direction key, the PTZ will keep circling as that direction after user press the stop


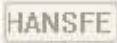

key in the center of the wheel.

3.3.1.1.1 ZOOM

- Click  ZOOM  to zoom in and out.
- Click  FOCUS  to focus
- Click  IRIS  to change the size of aperture

3.3.1.1.2 PTZ PRESET

PAN&TILE POS: Setup preset point.

You can control it via the below three buttons:   

3.3.1.2 PLAY

Move cursor to the icons, it will highlighted when selected



Open all windows.



Capture picture, save in local disk, the default save path is C:/DVR



Quickly start all channels' recording video, here the left up corner of each channel have normal recording video symbol **【 R 】** , click icon to switch between single

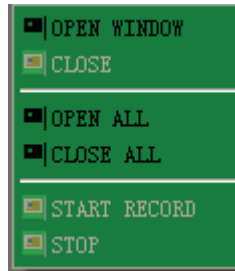
screen  /quad  /nine  /16 split .



Volume adjust button

3.3.1.3 OTHER OPERATION


1. Select one channel at preview screen (the selected channel's frame will be change to RED), double **คลิกซ้าย**, enter to the selected channel single screen display.
2. Click one Chanel via left key at preview screen, then **คลิกขวา**, will occur window shortcut Menu, see below picture





You can open, shut down and start this channel's record via shortcut menu.

3.คลิกขวา at one live view screen, click" open all windows" or " close all windows", will quickly open/close all windows.

3.3.2 REPALY

Click  to enter into remotely playback interface, which is to playback the record file in DVR.



Click right up of calendar interface  and , to setup the month for searching, click" refresh", at the calendar interface will display the recording information of current month



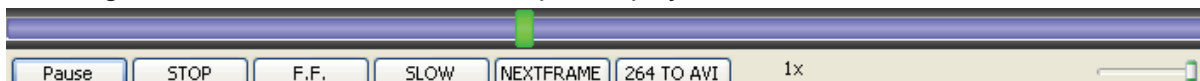
The highlighted date means that day have recording video, RED FRAME means the date is system date, click the date will search that days' recording file list. For example, the above picture display 2008, Dec. 3rd,4th,5th,6th,8th,9th,10th,11th,12th,17th,18th have recording video, and system date is 18th, Dec, 2008, currently search date is 17th, Dec.

At the below of calendar select channel and type, click SEARCH, the result will display, as follow.

FILE LIST		
TIME	CHANNEL	SIZE
! 08:04:36-08:05:36	2	7.7M
! 08:04:36-08:05:36	3	7.7M
08:05:36-09:05:36	2	452.4M
08:05:36-09:05:36	3	455.6M
! 08:22:58-08:26:54	4	26.2M
08:26:54-09:18:59	4	357.6M
! 09:01:26-09:18:59	1	129.6M
09:05:36-09:18:59	2	101.4M
09:05:36-09:18:59	3	102.4M
! 09:19:39-09:26:52	1	53.1M
▶ 09:19:39-09:26:52	2	54.9M
09:19:39-09:26:52	3	54.9M
! 09:19:40-09:20:41	4	7.2M
09:20:41-09:26:52	4	43.1M
! 09:27:30-09:40:55	1	97.8M
09:27:30-09:40:55	2	101.4M
09:27:30-09:40:55	3	102.3M
09:27:30-09:40:55	4	92.3M

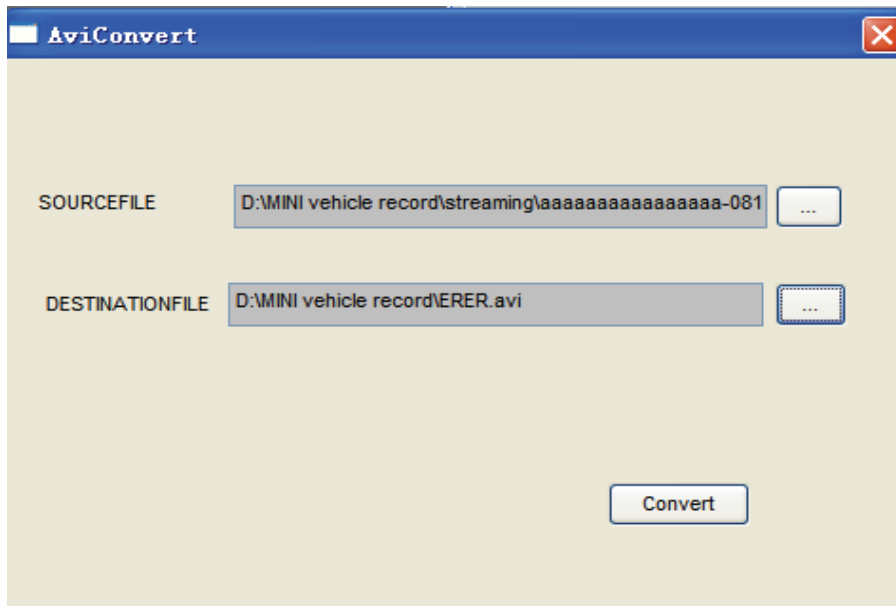
BACKUP REPLAY

Double click one item of listed recording video, the recording video will playback, meanwhile the file icon will change to ▶, and will occur the below picture play buttons:



The above purple progress bar shows download progress, green progress bar shows playback progress

- Switch between pause/play
- Stop play
- Fast play
- Slow play
- Pause at next frame
- Convert H.264 file to H.avi file, click this button access into file convert setting interface, as follow.



SOURCE FILE: Click to setup the H.264 file to convert

DESTINATION FILE: Click to setup the directory for saving AVI file

After setting, click , file convert start, the convert progress bar (see below picture) will see the progress of convert.

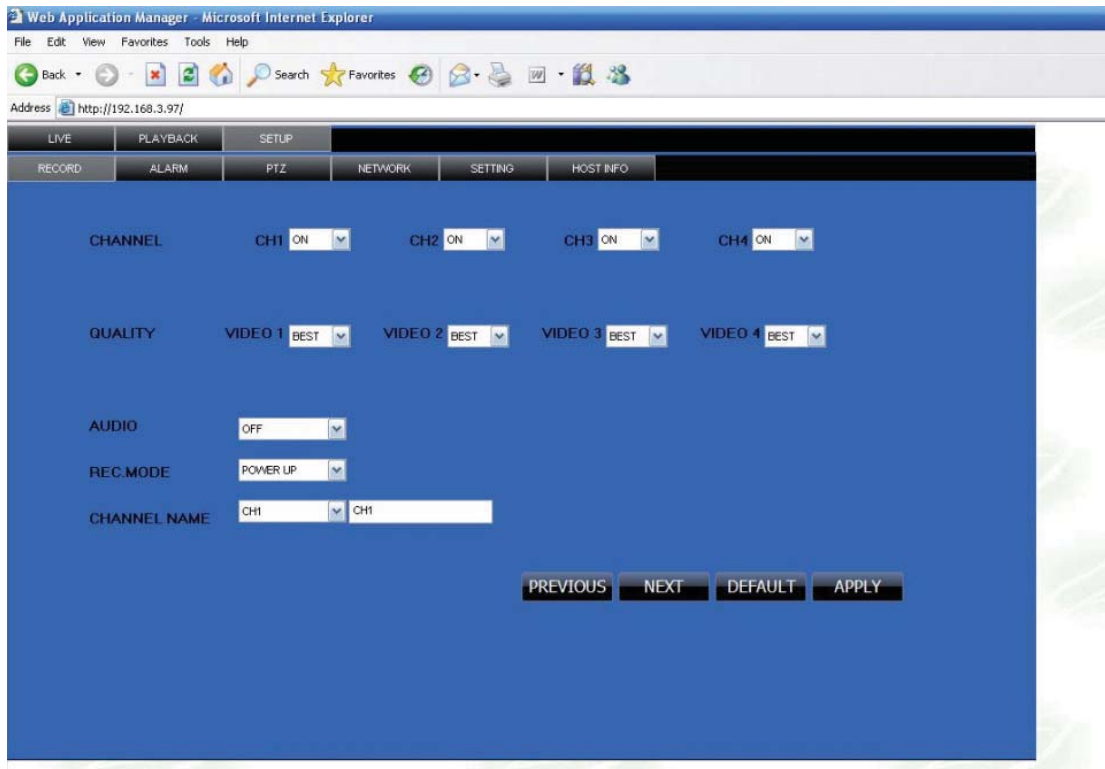


3.3.3 SETUP


Click to enter into setup interface, this interface include record, alarm, PTZ, network, setting and system information six menus.

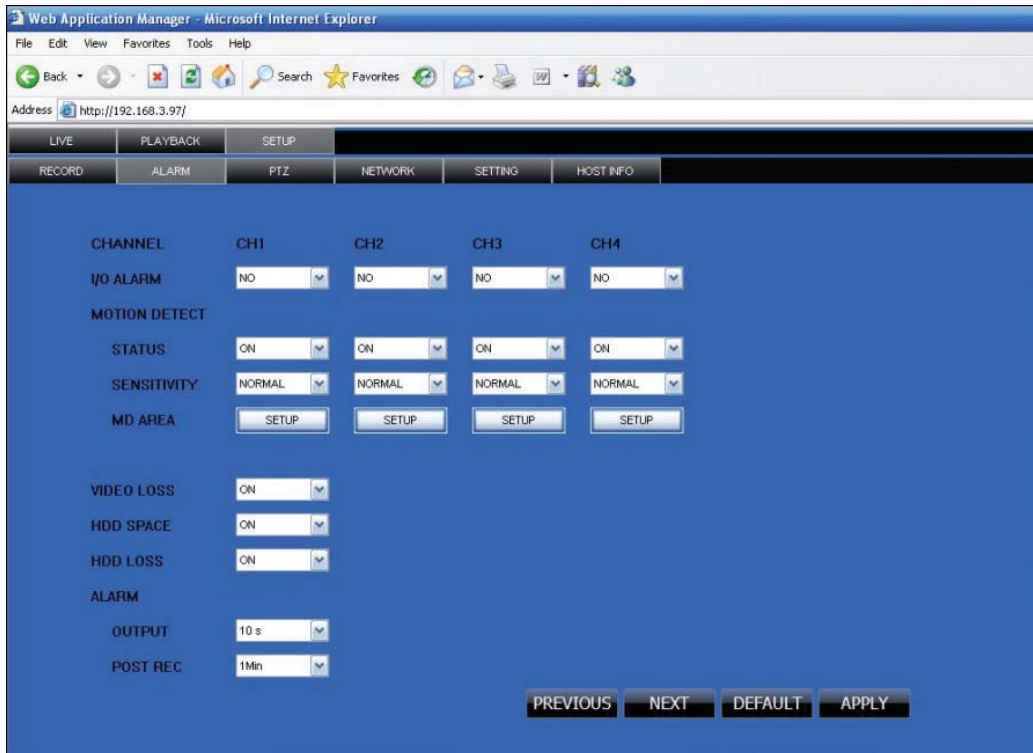
3.3.3.1 RECORD

Click to enter into setup interface; you can check the parameter settings as in GUI of DVR.

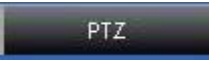


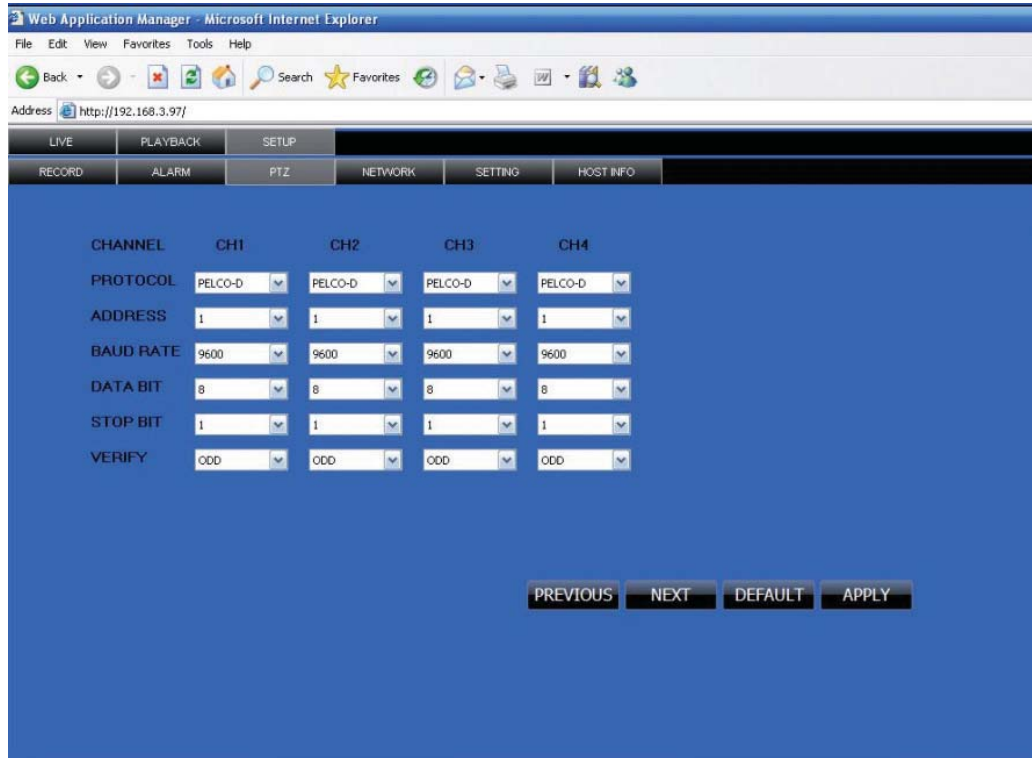
3.3.3.2 ALARM

Click  to enter into setup interface; you can check the parameter settings as in GUI of DVR.




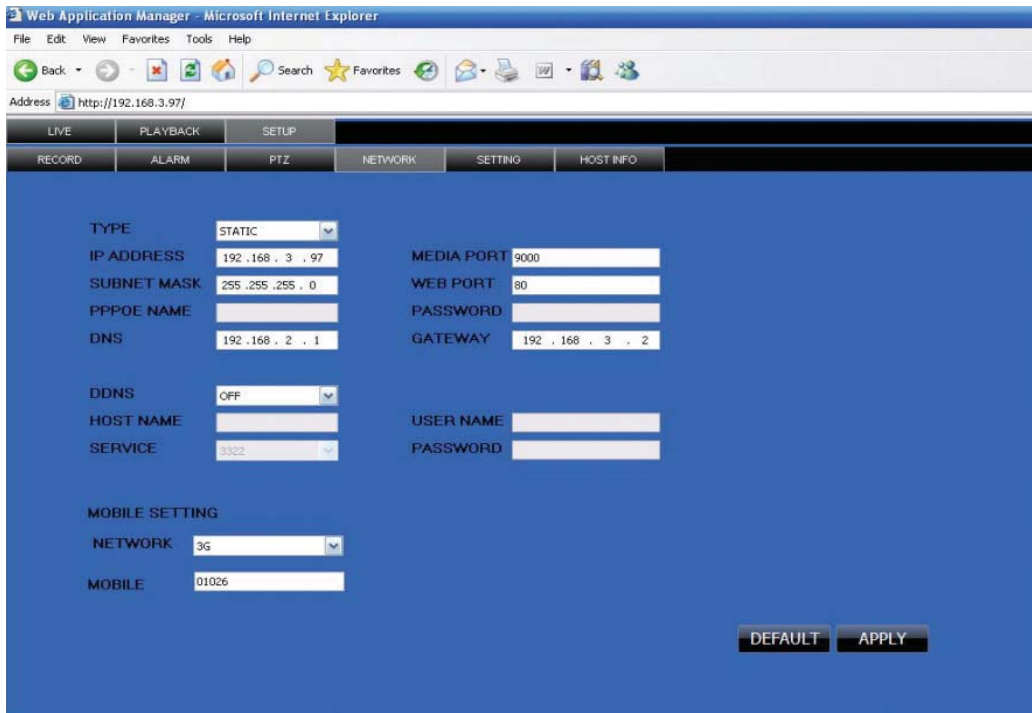
3.3.3.3 PTZ

Click  to enter into setup interface; you can check the parameter settings as in GUI of DVR.




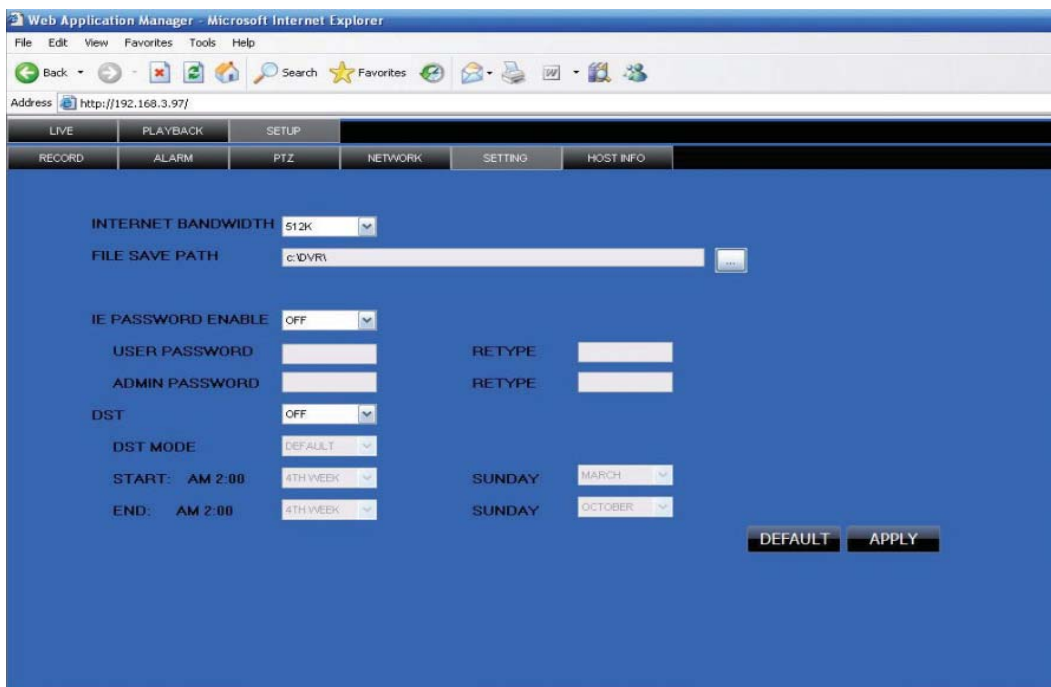
3.3.3.4 NETWORK

Click  to enter into setup interface; you can check the parameter settings as in GUI of DVR.



3.3.3.5 SETTING

Click  to enter into setup interface; you can check the parameter settings as in GUI of DVR.



BANDWIDTH: Set the amount of bandwidth in kbps (128k, 192k, 256k, 384k, 512k, 1024k) that you want to allocate for traffic that matches internet, this bandwidth not include audio.

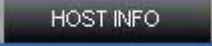
ข้อควรจำ: the normal ADSL network is between 256k and 384k

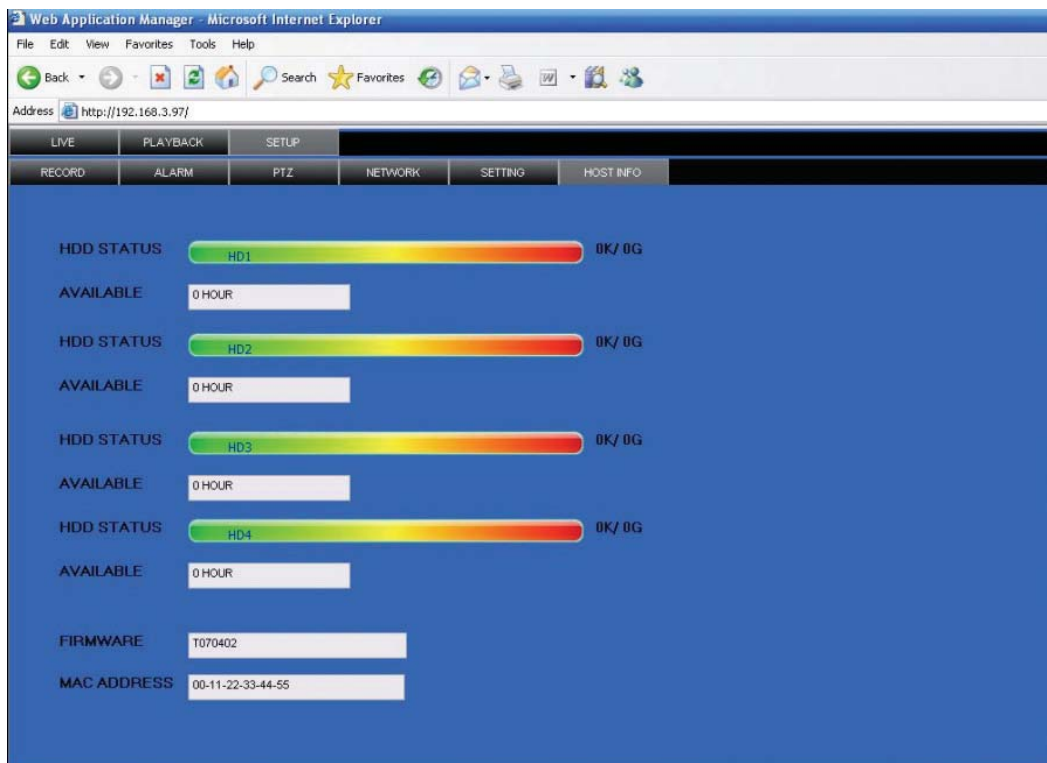
FILE SAVE PATH: capture picture and recording video save path.

IE PASSWORD: setup the password when you login IE

DST settings you can check as DVR setting.

3.3.3.6 HOST INFO

Click  to enter into system information interface (see below picture), this interface shows HDD status, remain record time, firmware version, MAC Address, and all the information is fixed.



4 DVR INSTALLATION

4.1 PRODUCT OVERVIEW

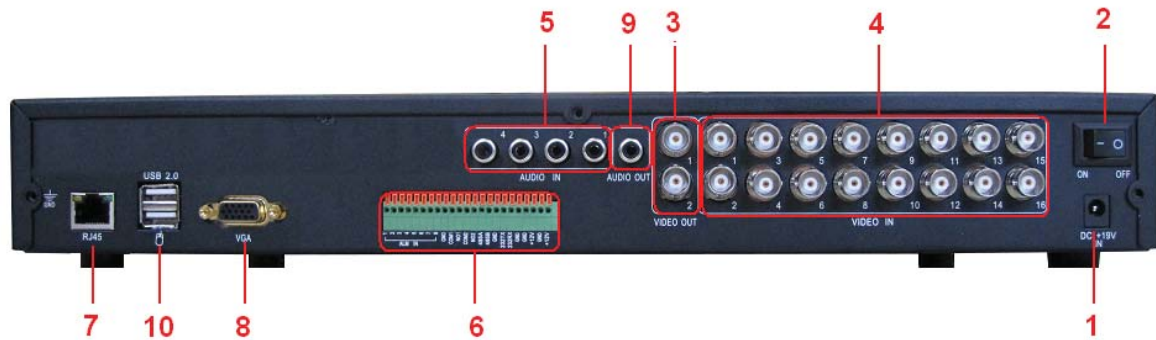
1. The Definition of Buttons and Connectors on Front Panel



Buttons on Front Panel

Item	Silk-Screen	Description
1	ON/OFF	POWER ON/OFF
2	Mouse	USB mouse
4	REC	Recording
	ALARM	Alarm
	HDD1	HDD1 Status
	HDD2	HDD2 Status
	HDD FULL	On means the HDD is full.
	100M	On means network is 100M
	LINK	On means network has connected
	ERROR	Error
	POWER	Power
5	IR	Remote control receiver

2. The definition of buttons and connectors on rear panel

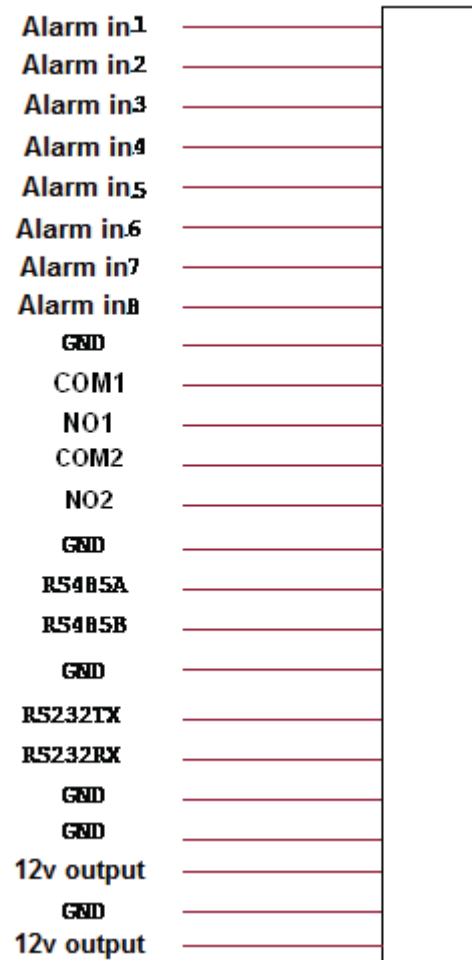


Connectors on Rear Panel

Item	Physical connector	Connector description
1	POWER input	DC 19V/3A
2	POWER SWITCH	POWER ON/OFF
3	Video output	Two video output for connecting TV or monitor (BNC)
4	Video input	For connecting analog video signal input (BNC)
5	Audio Input	For connecting audio signal
6	Alarm Input	8 I/O alarm input
	Alarm Output	I/O output for alarm
	RS485	RS 485 for connecting PTZ
	RS232	For connecting PC
7	Network	For connecting Ethernet
8	VGA	For connecting VGA monitor
9	Audio Output	For connection audio output
10	USB	USB2.0/USB mouse

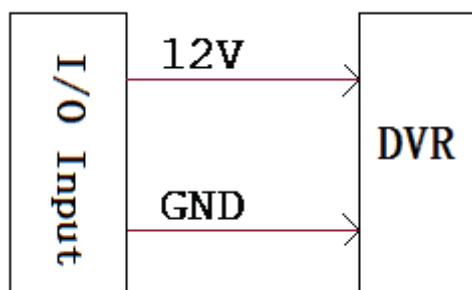
3. Connectors for Alarm

Peel off the color skin of the cable and then insert the cable into the slot on the rear panel DVR (The connection part for alarm).

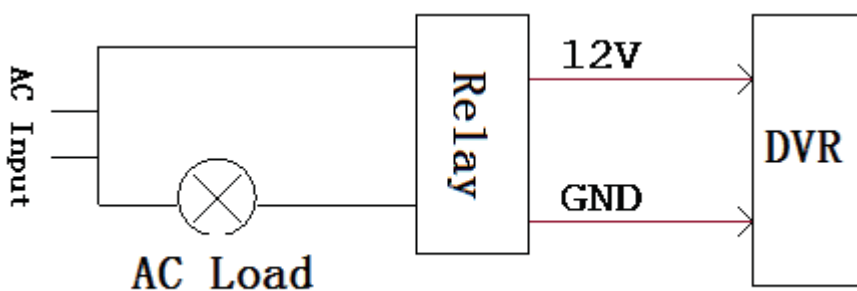


4. Alarm Input and Output

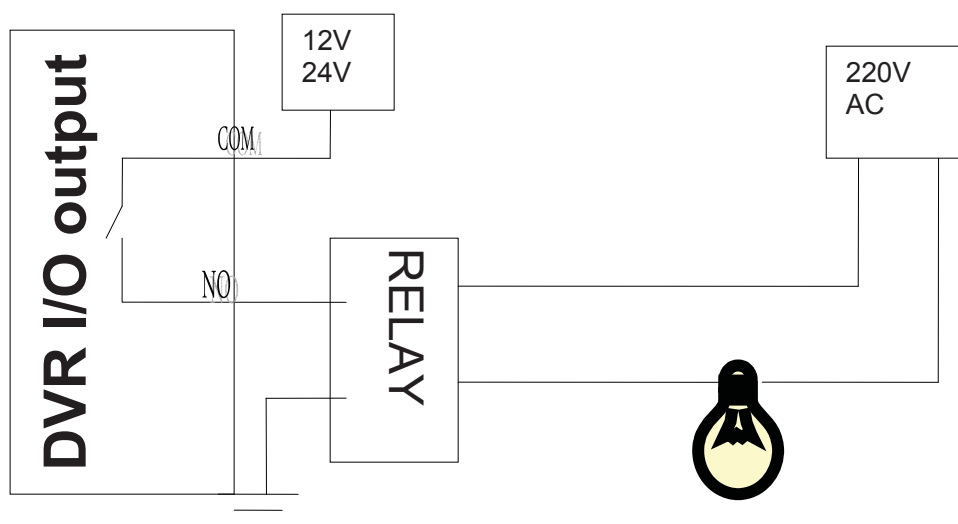
There are 8 sets alarm input connector and 1 set output for this DVR. Alarm input is for connection IR annunciator, fog sensor. The connection diagram of DC alarm input as following:



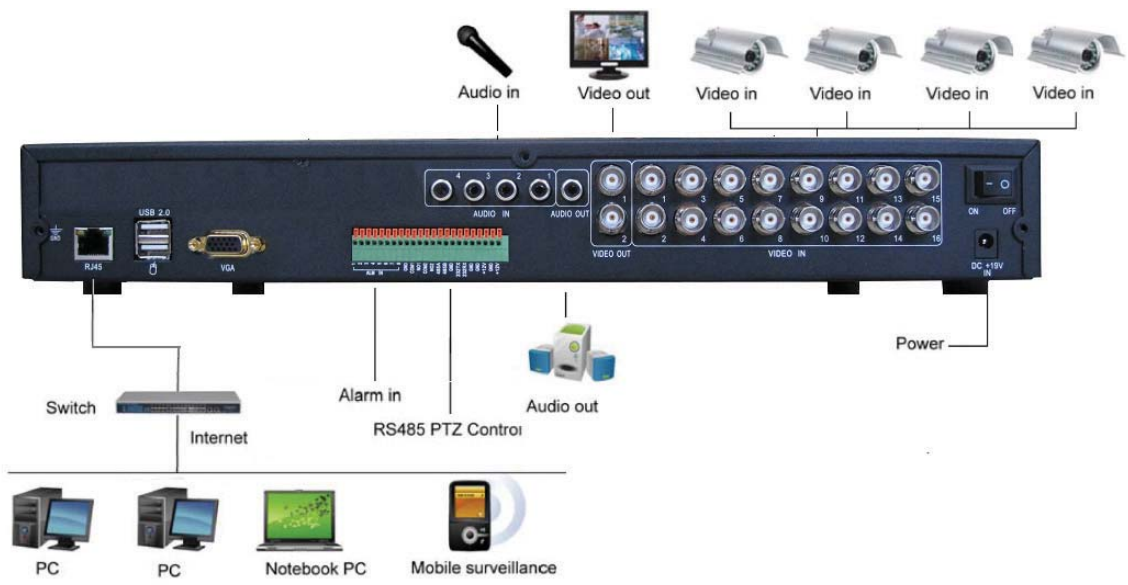
Connection diagram of AC alarm input as following:



The connection diagram of alarm output as following:



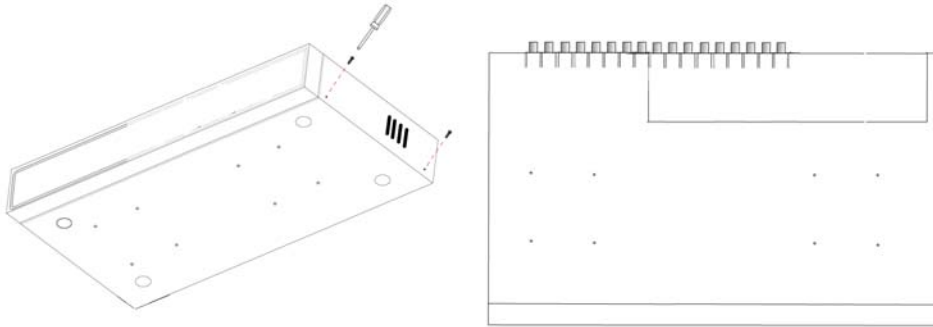
5. System Network Diagram



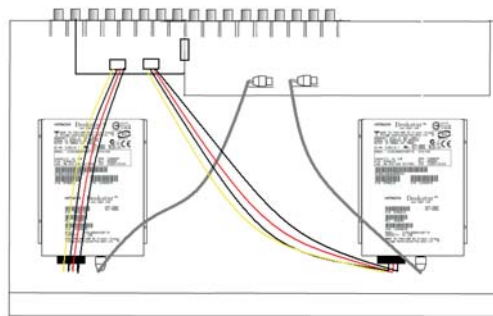
4.2 HDD INSTALLATION

Please installation the HDD as the following steps:

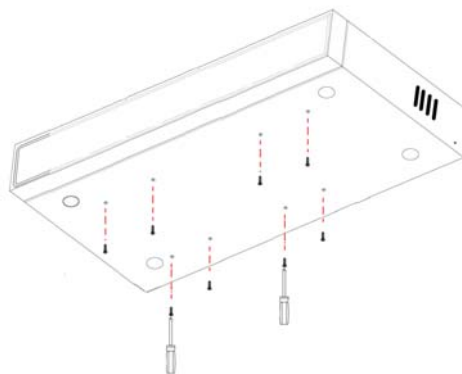
- 1) Open the cover of the DVR and then you will see one HDD plate as follow.



- 2) Connect HDD line as follow



- 3) Affix HDD on HDD plate as indicated below with the screws around.



- 4) Install the HDD plate back into DVR and close cover .

Notice: Newly installed HDD should format before recording

5.FAQ

If your problem is not listed below, please call our toll-free number for more support.

1. Question: DVR is not working after starting?

Answer:

- ✧ Check the adaptor input
- ✧ Check the on-off power line, is it well-connected?
- ✧ Check the power on-off
- ✧ Check the upgrade procedure
- ✧ Check the main board of DVR

2. Question: DVR is rebooting automatically or stopped after starting the DVR for several minutes?

Answer:

- ✧ Instability or low input voltage
- ✧ Bad track hard drive or the line of hard drive is bad
- ✧ On-off power supply is not enough
- ✧ The front-end video signal instability
- ✧ High temperature, too much dust, too bad the DVR operating environment
- ✧ The main board is not well-connected with other boards
- ✧ The hardware of DVR is defective

3. Question: No output of single channel, multi channel or all channel video?

Answer:

- ✧ Please check the adaptor of camera whether to see if it is well-connected
- ✧ Please check the cable for connecting video input/output in the back panel of DVR
- ✧ Please insert the video source directly into the display device and check If they are causing the problem.
- ✧ Check the brightness of the picture and bring it back to its original default setting
- ✧ No video input signal or too weak
- ✧ Display settings in the preview set to be closed
- ✧ The hardware of DVR is defective

4. Question: DVR cannot record after startup and the interface is showing "H"

Answer:

- ✧ Make sure power adaptor is DC 19V
- ✧ Make sure HDD is formatted
- ✧ Check the power and data connection cables of the HDD
- ✧ The HDD is defective
- ✧ The SATA port is not working

5. Question: What is meaning of "R" "M" "I" "H" showed in interface?

Answer:

-
- ✧ “R” means the channel is recording
 - ✧ “M” means the channel is on motion detection
 - ✧ “I” means the channel is on alarm
 - ✧ “H” means there is either no HDD. the HDD is bad or the HDD is full

6. Question: DVR is having problem with real-time images, such as bad image color or serious brightness distortion

Answer:

- ✧ If PAL and NTSC is not correctly selected on the BNC output, the images will be in black and white
- ✧ DVR is not compatible with monitor
- ✧ The video transmission distance is too far
- ✧ The setting of DVR color, brightness and so on are wrong

7. Question: No audio sound when monitoring?

Answer:

- ✧ Check sound box or speaker functions. Also check possible short circuit.
- ✧ Audio source may be connected to the video channel. You can click to full-screen to check.
- ✧ The hardware of DVR is defective

8. Question: No audio sound when playing back?

Answer:

- ✧ Setting problem: open audio-video item
- ✧ Check the audio to see if it is closed in playback interface

9. Question: System time is not correct?

Answer:

- ✧ Wrong setting or user did not click "Edit" to confirm
- ✧ Battery is not connected properly
- ✧ Battery is dead. Please change.

10. Question: Why the “Stop recording” by the right mouse button does not work, how to stop recording?

Answer: :

- ✧ The “Stop recording” by the right mouse button is only suitable for Manual recording. It can't stop recording when it's in “start recording” or the video in video plan.
- ✧ If you want to stop recording, please set the time is not recording.

11. Question: "Stop recording" function by the right mouse button does not work. How to stop recording?

Answer:

The "Stop recording" by the right mouse button is for Manual Recording only. It can not stop recording when it is in "start recording" or the video is in video plan. If you want to stop recording, please set the time to not recoding.

12. Question: Motion detection is not working?

Answer: :

-
- ✧ The setting of motion detection area is not correct
 - ✧ Sensitivity is too low

13. Question: CD-writer /USB backup error

Answer:

- ✧ The data exceeds the capacity of backup device
- ✧ The backup device is incompatible
- ✧ The backup device is damaged

14. Question: Remote control cannot work?

Answer :

- ✧ The address of remote control is not correct
- ✧ The distance of remote control is too far or the angle is too biased
- ✧ Remote control batteries run out
- ✧ Remote control is damaged or the front panel of DVR is damaged

15. Question: WEB cannot login?

Answer:

- ✧ Please check the network to see if it is connected. Check if LINK or 100M LED is displayed normally on the panel; use ping xxx.xxx.xxx.xxx (DVR IP) to check if the Internet is linked properly.
- ✧ Recommended to use Windows XP or Vista operating system, also use IE6.0 browser or IE7.0 browser
- ✧ ActiveX control has been blocked. Please manually install ActiveX control again.
- ✧ Please install DX8.1 and upgrade your video card driver

16. Question: There is no picture or picture is not clear when you preview the recording or playback the recording via IE

Answer:

- ✧ If you access DVR by IE, please choose "Wan" in "web environment"
- ✧ Please try "Close windows" by the right mouse button, and try "Open windows" again

17. Question: It displays "other members are setting....." while setting DVR by IE

Answer:

- ✧ It probably means someone else is setting the DVR. Please check the DVR configuration interface or exit DVR.