

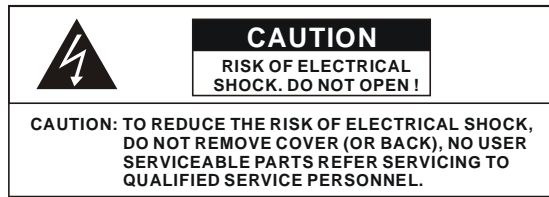
Thank you for purchasing our product.
Please read this User's Manual before
using the product. Change without Notice

4 Channel Digital Video Recorder

User's Manual



Safety Precautions



This label may appear on the bottom of the unit due to space limitations.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insulated dangerous Voltage within the product's enclosure that may be sufficient magnitude to constitute risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE UNITS NOT SPECIFICALLY DESIGNED FOR



Attention: installation should be performed by qualified service Personnel only in accordance with the National Electrical Code or applicable local codes.



Power Disconnect. Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is the ON position. The power cord is the main power disconnect for all unites.



“CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction.”

Warranty
and Service

During the warranty period (one year for Hard Disk), we will repair or replace the hard disk free of charge.

Be sure to have the model number, serial number and vendor stick on hard disk for service representative.

About this document

Before installing stand alone DVR, be sure to thoroughly review and follow the instructions in this Users Manual. Pay particular attention to the parts that are marked **NOTICE**.

Also, when connecting with external application, first turn the power OFF and follow manual instruction for appropriate installation.

Before reading this document

1. This document is intended for both the administrator and users of stand alone DVR Model.
2. This manual contains information for configuring, managing and using stand alone DVR Model.
3. To prevent fire or electrical shock, do not expose the product to heat or moisture
4. Be sure to read this manual before using stand alone DVR Model.
5. For questions and technical assistance of this product, contact your local dealer.

► Strong recommendation on installation of the DVR unit

1. Check electricity at the place you want to install the DVR unit is stable and meets our electricity requirements.
Unstable electricity will cause malfunction of the unit or give critical damage to the unit.
2. Several chips on the main board of the DVR unit and hard disk drive inside the unit generate heat, and it must be properly discharged.
Do not put any objects just beside exhaust port(fan) on the left side of the unit and do not close up an opening (fresh air in-take) on the right side of the unit..
3. Put the DVR unit at well-ventilated place and do not put heat-generating objects on the unit.
When it is installed inside 19 inch mounting rack together with other devices, please check built-in ventilation fan of the rack is properly running.

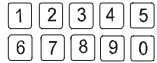
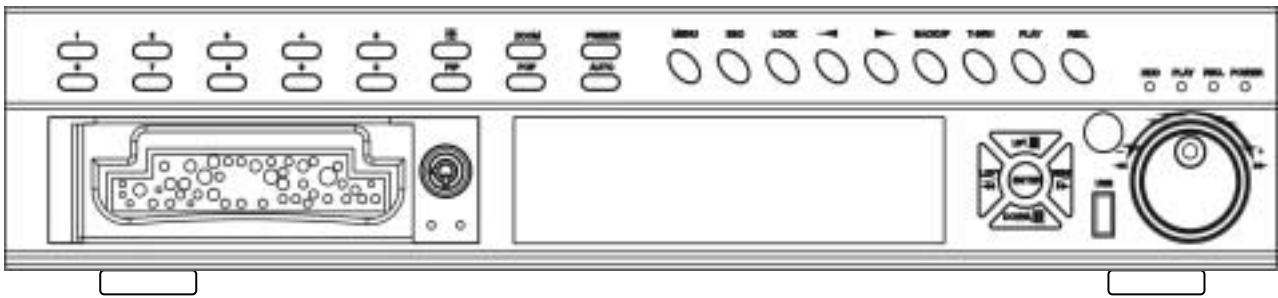
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Hardware

1	X	DVR Machine
1	X	Power Core (Power core type depends on your order)
1	X	Adaptor 12V / 5A
1	X	User Manual
1	X	Remote controller
1	X	CD
8	X	Screw (Without Hard Disk)
4	X	Screw (Within one Hard Disk)

Unit Description of Front Panel



1 ~ 4 camera channel full screen choose button / 0 ~ 9 password input



4 quad split screen display button

PIP Picture in picture button

ZOOM Picture 2x2 zoom in

POP Picture on picture button

FREEZE Picture Freeze

AUTO Channel auto sequence button

MENU Function menu button

ESC Function exit button

LOCK Key lock button



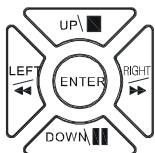
Value change button

BACKUP Image backup button

T-SRH Time search button

PLAY Image playback button

REC Image record button

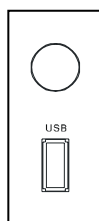


Direction button Up and Down /
Record or playback stop /
playback pause or step button.

Direction button left and right,
Fast / Slow Reverse,
Fast / Slow forward playback.

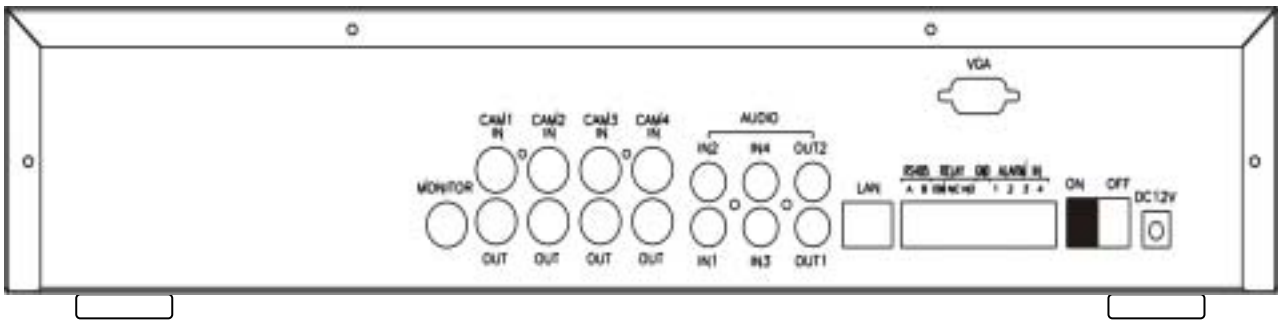


Shuttle



Remote controller IR
USB port

Unit Description of Rear Panel



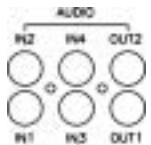
Power code in 12V/5A, power switcher



Camera 1 ~ 4 in and out



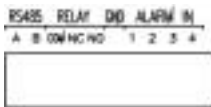
Monitor out



Audio channel input x 4 and output x 2



VGA output. PC monitor connector. (OPTIONAL)



RS 485 A + / B –
Alarm In: 1 / 2 / 3 / 4
Relay: NO / NC / COM



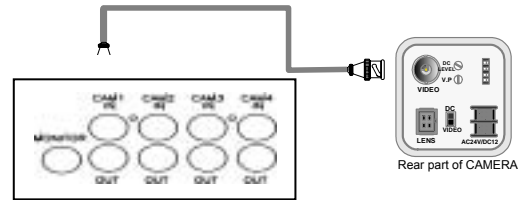
Network connector. (Not available currently)

Installation

Procedure

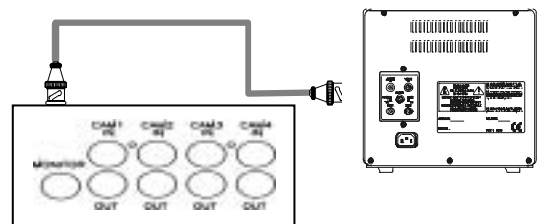
1) Camera Connection

Connect the camera to the CAMERA INPUT on the Rear Panel of the 4 CH DVR.



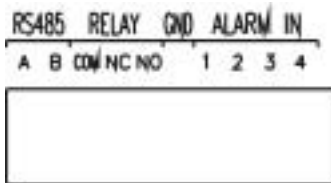
2) Monitor Connection (Composite Connection Method)

Connect the monitor to the MONITOR OUT on the Rear Panel of the 4 CH DVR.



3) Sensor Connection

Connect the Sensor to the SENSOR INPUT/ OUTPUT on the Rear Panel of the system

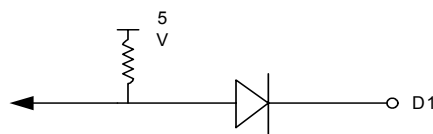


Relay output : COM+NC, COM+NO

Alarm input : Short-circuit between Alarm1, Alarm2, Alarm3 or Alarm4 and GND is recognized as alarm. Alarm 1~4 = Camera1~4.

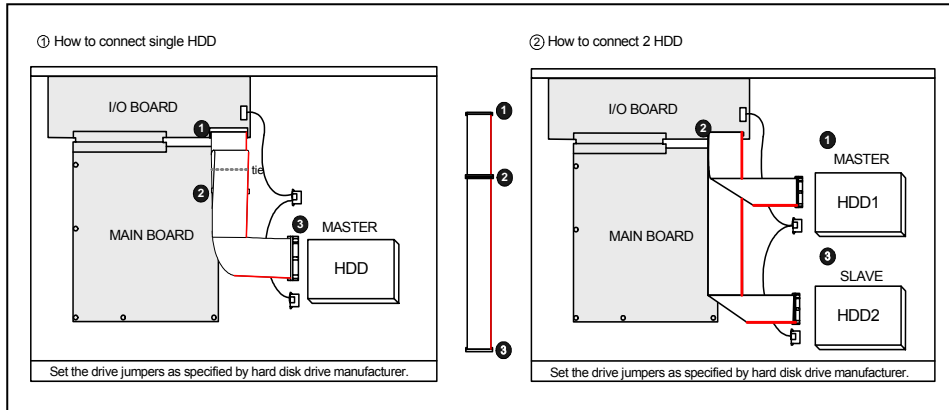
NOTICE: Sensor input is RECOGNIZED as LOW when alarm signal is on a level with GND, and it is recognized as HIGH when alarm signal is FLOATING or 5V. Following is internal circuit.

Internal Circuit



Thus, there is a danger of damage, when the sensor input goes to a Negative level or voltage higher than 5V.

4) HDD internal connection



1. Make sure the HDD is MASTER.
2. Make sure the cable connector is correct.
3. MASTER set up, please check the HDD panel.

1. Make sure the HDD is MASTER and SLAVE.
2. Make sure the cable connector is correct.
3. MASTER and SLAVE set up, please check the HDD panel.

Notice:

- The 4 CH DVR provides 2 removable rack hard drives.
- Hard Disk Master and Slave jumper pin must right, otherwise it makes DVR work fault.

5) Power Connection

Connect the power to the POWER CONNECTION on the Rear Panel of the system, and turn on the switch.



6) Turn on the POWER.


Make sure the adaptor is 12V/5A.

7) Detail setup in SYSTEM SETUP

For detail setup, refer to the instruction of SYSTEM SETUP.




Full screen or quarterly split screen display


Press  quad button to display 4 quarterly split screen.

Press numeric 1 / 2 / 3 / 4 buttons to display the desired camera image in full screen.

1.) FREEZE Mode


1. In live and the quad mode press  (FREEZE) button to freeze image.

Press  again to cancel freeze mode.


2. On the full screen display, press  (FREEZE) button to freeze full screen image.

2.) Zoom Mode(Display Enlargement.)



Go to full screen mode with numeric buttons of live mode, then press ZOOM button to display screen Enlargement.

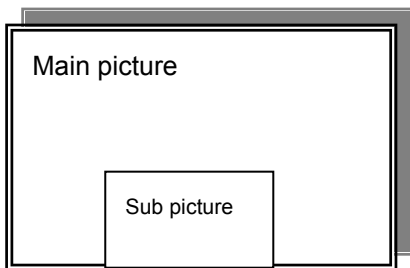
Use  button to move position.



3.) Auto Mode

Press  (AUTO) button begins to screen auto sequence.


4.) PIP (PICTURE IN PICTURE)

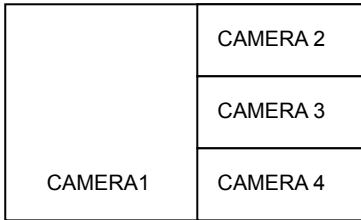
1.) Press  (PIP) button. Press  (AUTO) button begins to sub-screen auto sequence.



2) With  button, select the main channel screen, press  button to select desired camera channel in small screen.

4.1) POP (PICTURE ON PICTURE)

1.) Press POP button to display pictures on screen. Press  (AUTO) button begins to sub-screen auto sequence.



5.) Alarm Sensor Recording

See the alarm recording setup page


6.) Scheduled Recording

See the scheduled recording setup page

7.) Motion detection Recording

See the motion detection recording setup page

8.) Key Lock function

On the Live mode, press  (lock),

Only, numeric, freeze, auto, pip, and zoom buttons could work. Press lock key again to enter the login-in window. Enter admin or user password to unlock.

9.) Audio function

4 audio channel record, 1 audio output at once time.

See the advanced setup→ Record setup

10.) BACKUP

BACKUP SETUP PAGE 1. BACKUP DEVICE USB 2. DETECT 3. FORMAT USB 4. BACKUP FORMAT PES 5. BACKUP CHANNEL 1 2 3 4 START: xxxx/xx/xx xx:xx:xx END: BACKUP SIZE: x / MB START BACKUP

1.Device USB.

2.Detect: Detect device.

3.USB data format.

4. Image format: AVI or PES.

PES. Need the AP software from factory.

5. Choose channel. v means this camera is chosen.

Size: Current / Total


Notice

1> Recording is not possible if no camera is connected.

2> PES. All channels are record in quad. Use Video Viewer to play back. Screen can display on full channel or quad. AVI, each camera play back.

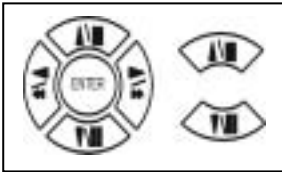
Playback

1. Playback Mode

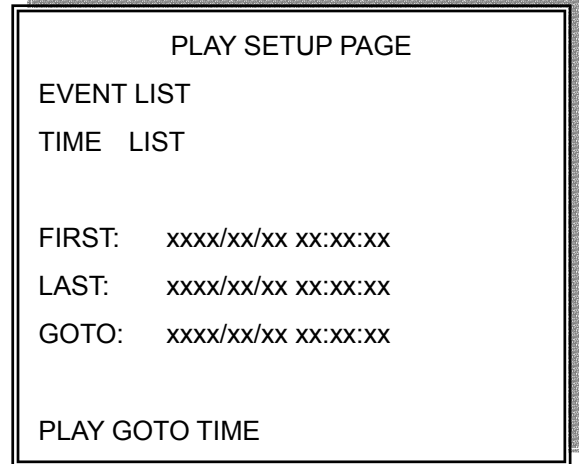
- 1) Press  button to begin playback.
(System will playback the previous time recording.)

2. T-SRH button

T-SRH: Playback by time search.
Press T-SRH button to active playback function.



Press direction button
UP/DOWN to choose
items.

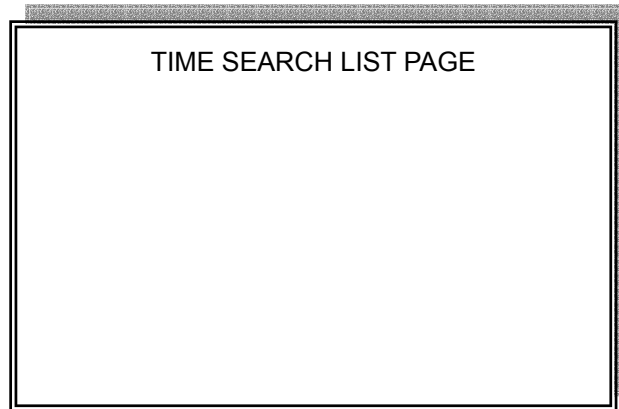


- 1) **EVENT LIST (Alarm List):** Event source- Video loss / Alarm trigger / Motion / Pwreset (DVR reboot)

OCCURRED	TIME	CH	TYPE
----------	------	----	------

12 items display each page. Total 1024 items.

2) TIME LIST (Playback image by Time-Search): Recorded images list (by hours)



FIRST: xxxx/xx/xx xx:xx:xx (The FIRST date and time recording display).

LAST: xxxx/xx/xx xx:xx:xx (The final date and time recording display).

GOTO: xxxx/xx/xx xx:xx:xx (year / month / day, Hour / Minute / Second)



Press direction button Left/Right to change date and time values position.


Press ◀ ▶ values change button to change date and time values.

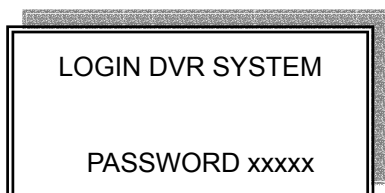
PLAY GOTO TIME

After date and time input, direction move to PLAY GOTO TIME, press ENTER to start playback.

FUNCTION SETUP

LOGIN

- 1) Press  button to enter into menu. You could do the system function setup in MENU.
- 2) Password enter window pop-up:



Default password (Account-Admin): 00000

Default password (Account-User): 11111

Default password (Account-GUEST): 22222

- 3) Press numeric (0 ~ 9)button to choose password.
- 4) Remote controller function buttons are same as DVR panel function buttons.

Notice:



1. ADMIN level can setup all DVR menu functions.
2. USER level cannot setup ADVANCED page of DVR main menu function.
3. GUEST level cannot setup anything.



Press MENU button to enter MAIN SETUP PAGE.

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

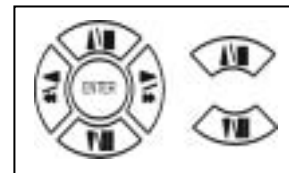
1) Use direction button up/down  button to select setup item.

2) Press  button to enter into sub-menu function setup.

3) Press sub-menu item with direction button up/down 
or left/right  button.

And change the value with   values change button or turn inner-shuttle.

4) Press ESC to go back to main / sub menu or exit menu.




1. HDD INFORMATION

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

NO.	SIZE	USED	BRAND
01	080GB	OW	SEGATE
STATUS: USE			
START:	xxxx(Y)/xx(M)/xx(D) xx:xx:xx(H:M:S)		
END:	xxxx(Y)/xx(M)/xx(D) xx:xx:xx(H:M:S)		



Use direction button up/down  button to select HDD INFORMATION item position.

Press ESC to go back to main menu or exit menu.

>NO: Hard disk amount

>Size: Hard disk capacity display. xx GB.

>USED: Hard disk %. If sets overwrite, after hard disk full then starts to overwrite, it displays OW.

Hard disk full is 99%.

>Brand: DVR system auto detect hard disk brand after power on.

-Status: IDLE / RECORDING

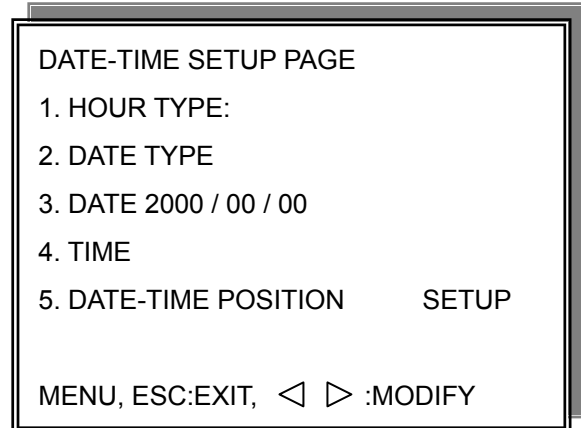
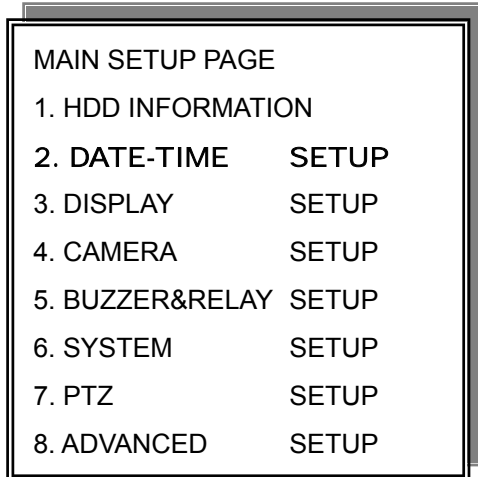
START: xxxx(Y)/xx(M)/xx(D) xx:xx:xx(H:M:S)

The first recording date and time display.

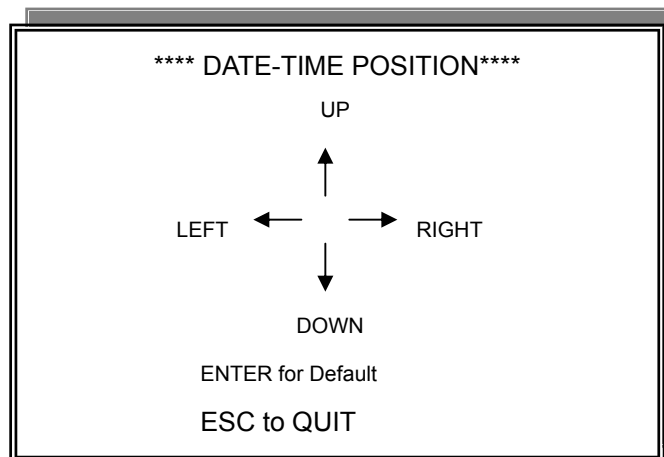
END: xxxx(Y)/xx(M)/xx(D) xx:xx:xx(H:M:S)

The last recording date and time display.

2. DATE-TIME SETUP



1. Hour Type: 12H/24H:MM:SS. 12 Hour Format / 24 Hour Format.
2. Date Type: YY/MM/DD, MM/DD/YY, DD/MM/YY, YY/ENG/DD, ENG/DD/YY, DD/ENG/YY, YYYY/MM/DD, MM/DD/YYYY, DD/MM/YYYY, YYYY/ENG/DD, ENG/DD/YYYY, DD/ENG/YYYY. Y=Year. M=Month. D=Day. ENG=Month display in English.
01=January; 02=February; 03=March; 04=April; 05=May; 06=June;
07=July; 08= August; 09=September; 10=October; 11=November; 12=December.
3. Date: 2003/01/01
4. Time: 12/30/49 > Use direction button up/down choose position, values change button to change date and time values. ◀ ▶
-Please stop REC function first if you want to change the time.
5. Date and Time position setup:



Press direction button up/down/left/right to choose items or move date-time position.

>User can see the date-time position moving when pressing direction buttons.

3. DISPLAY SETUP

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

DISPLAY SETUP PAGE	
1. DATE-TIME	ON
2. CAMERA TITLE	ON
3. PB DATE-TIME	ON
4. PB CAMERA TITLE	ON
5. DVR STATUS	ON
6. BORDER SET	WHITE
7. VLOSS DISPLAY	ON
MENU, ESC:EXIT, ◀ ▶ :MODIFY	

1. DATE-TIME: Date and Time caption display mode on or off setup.
>ON / OFF
2. CAMERA TITLE: Camera Title caption display mode on or off setup.
>ON / OFF
3. PB DATE-TIME: Play back date and time caption display mode on or off setup.
>ON / OFF
4. PB CAMERA TITLE: Play back camera title caption display mode on or off setup.
>ON / OFF
5. DVR STATUS: DVR system, record, playback, audio caption display mode on or off setup.
>ON / OFF
6. BORDER SET: Border color WHITE / BLACK / DARK / GRAY / OFF
7. VLOSS DISPLAY
>ON / OFF



Press direction button up/down to choose the desired item.

Press ◀ ▶ values change button to change values.

4. CAMERA SETUP

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

CAMERA SETUP PAGE	
1. COLOR	SETUP
2. TITLE	SETUP
3. MARK&MIRROR	SETUP
MENU, ESC: EXIT, ENTER: RUN	

(1.) COLOR SETUP

CAMERA SETUP	
1. COLOR	SETUP
2. TITLE	SETUP
3. MARK&MIRROR	SETUP

CAMERA COLOR SETUP PAGE	
** CH NUMBER	01
1. BRIGHTNESS	+0
2. CONTRAST	+0
3. SATURATION	-2
4. HUE	+1
>DEFAULT RESET<	
MENU,ESC:EXIT,◀ ▶:MODIFY	

CAMERA-COLOR SETUP : Adjust Camera Image

CH NUMBER : Select camera
 BRIGHTNESS : Adjust screen brightness (-31~ +32)
 CONTRAST : Adjust color contrast (-31~ +32)
 SATURATION : Adjust color saturation (-31~ +32)
 HUE : Adjust color hue (-31~ +32)

>DEFAULT RESET<: Press ENTER button to reset DVR values.

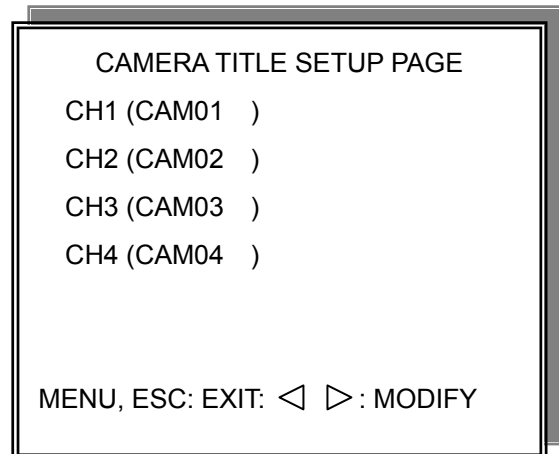
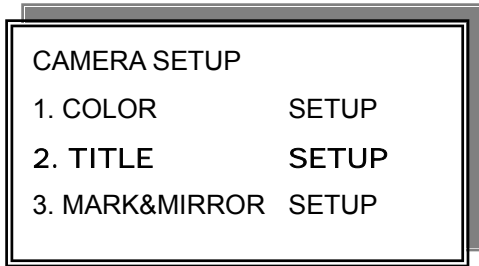


Press direction button up/down to choose items.

Press ◀ ▶ values change button to change values.

>Right adjustment of each element in COLOR setup will increase picture quarterly displayed.
 We recommend you to adjust each element of COLOR SETUP for cameras and monitor to be connected to the DVR unit.

(2.) TITLE SETUP: Input TITLE of each camera. 14 characters can be input.



Press direction button up/down/left/right to choose items and position.

Press ◀ ▶ values change button to change values.

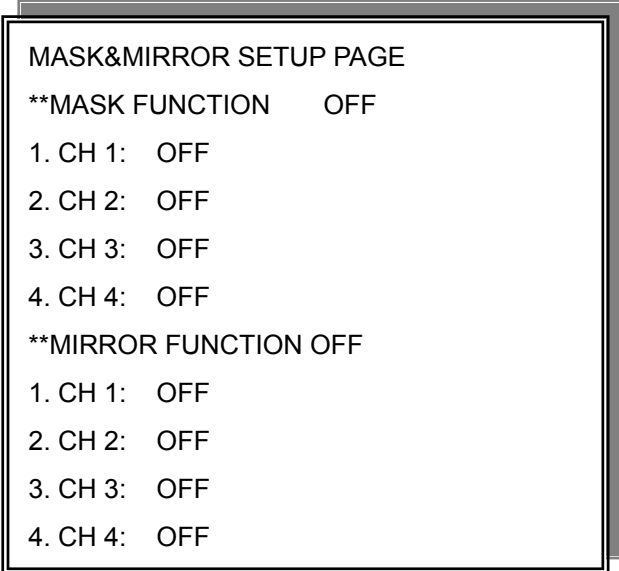
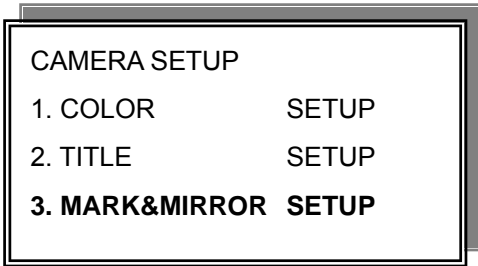
Characters choose:

Numeric: 0 / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9

Capital letter: A / B / C / D / E / F / G / H / I / J / K / L / M / N / O / P / Q / R / S / T / U / V / W / X / Y / Z

SPACE

3.)MASK&MIRROR SETUP



MASK&MIRROR SETUP PAGE

**MASK FUNCTION OFF / ON

- 1. CH 1: OFF / ON
- 2. CH 2: OFF / ON
- 3. CH 3: OFF / ON
- 4. CH 4: OFF / ON

**MIRROR FUNCTION OFF / ON

- 1. CH 1: OFF / ON
- 2. CH 2: OFF / ON
- 3. CH 3: OFF / ON
- 4. CH 4: OFF / ON



Press direction button up/down/left/right to choose items and position.

Press ◀ ▶ values change button to change values.

5. BUZZER&RELAY SETUP

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

BUZZER&RELAY SETUP PAGE	
BUTTON MUTE	ON
**SYSTEM BUZZER	OFF
1. ALARM BUZZER	ON
2. MOTION BUZZER	ON
3. VLOSS BUZZER	ON
**SYSTEM RELAY	N.O.
1. ALARM RELAY	ON
2. MOTION RELAY	ON
3. VLOSS RELAY	ON
MENU, ESC: EXIT: ◀ ▶ : MODIFY	

BUTTON MUTE ON / OFF

**SYSTEM BUZZER: Buzzer function

>ON / OFF

1. ALARM BUZZER?

> ON / OFF

2. MOTION BUZZER?

> ON / OFF

3. VLOSS BUZZER?

> ON / OFF

**SYSTEM RELAY N.O. / N.C.

1. ALARM RELAY?

> ON / OFF

2. MOTION RELAY?

> ON / OFF

3. VLOSS RELAY?

> ON / OFF



Press direction buttons up/down to BUZZER SETUP items.



Press values change button to change values.

6. SYSTEM SETUP

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

SYSTEM SETUP	
1. DWELL INTERVAL	010SEC
2. LANGUAGE	ENGLISH
3. RS-485 ID	01
4. RS-485 BAUDRATE	9600
5. LIVE AUDIO	OFF
MENU, ESC: EXIT: ◀ ▶ : MODIFY	

SYSTEM SETUP

1. DWELL INTERVAL:
- 0 ~ 999SEC
2. LANGUAGE:
- ENGLISH / CHINESE / JAPANESE
3. RS-485 ID:
-01 ~ 16
4. RS-485 BAUDRATE:
- 9600 / 4800 / 2400

Notice:

RS-485 ID and baud rate is the command for system control keyboard. If user has no keyboard to control then does not have to care.

5. LIVE AUDIO
- CH01 ~ CH04 / OFF

Notice:

1. Whatever Live on quad or full screen, user needs to choose what channel output.
2. But on playback mode, this function is no used. Users need to choose channel output. That means just press channel button to playback audio.



Press direction buttons up/down to choose items.



Press values change button to change values.

7. PTZ SETUP

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

PTZ SETUP PAGE	
**PROTOCOL	P-TYPE
**BAUDRATE	2400
**CHANNEL NUMBER	CH01
PTZ NUMBER	01
LINE SCAN	OFF
TEST	

PTZ SETUP PAGE

**PROTOCOL P-TYPE / D-TYPE
 **BAUDRATE 2400 / 4800 / 9600
 **CHANNEL NUMBER CH01 ~ CH04
 PTZ NUMBER 01 ~ 64
 LINE SCAN OFF / ON

TEST: To test PTZ dome is connecting correct or not. If not, PTZ dome would not move.



Press direction buttons up/down to choose items.



Press values change button to change values.

8. ADVANCED SETUP

MAIN SETUP PAGE	
1. HDD INFORMATION	
2. DATE-TIME	SETUP
3. DISPLAY	SETUP
4. CAMERA	SETUP
5. BUZZER&RELAY	SETUP
6. SYSTEM	SETUP
7. PTZ	SETUP
8. ADVANCED	SETUP

ADVANCED SETUP PAGE	
1. ALARM	SETUP
2. MOTION	SETUP
3. RECORD	SETUP
4. EVENT RECORD	
5. EVENT	
6. PASSWORD	SETUP
7. HDD FORMAT	
8. FACTORY DEFAULT	
9. UPGRADE	

ADVANCED SETUP PAGE	
1. ALARM	SETUP
2. MOTION	SETUP
3. RECORD	SETUP
4. EVENT RECORD	
5. EVENT	
6. PASSWORD	SETUP
7. HDD FORMAT	
8. FACTORY DEFAULT	
9. UPGRADE	

ALARM SETUP PAGE	
1. ALARM FUNCTION	ON / OFF
2. ALARM POPUP	ON / OFF
>ALARM POLARITY SETUP<	
ALARM01: NO / NC / OFF	
ALARM02: NO / NC / OFF	
ALARM03: NO / NC / OFF	
ALARM04: NO / NC / OFF	
MENU, ESC: EXIT: ◀ ▶ : MODIFY	

ALARM POLARITY SETUP PAGE
 ALARM01: NO / NC / OFF
 ALARM02: NO / NC / OFF
 ALARM03: NO / NC / OFF
 ALARM04: NO / NC / OFF

1. ALARM FUNCTION	ON / OFF
2. ALARM POPUP	ON / OFF
Full screen popup when alarm events	



Press direction buttons up/down to choose items.



Press values change button to change values.

2. MOTION SETUP

ADVANCED SETUP PAGE	
1. ALARM	SETUP
2. MOTION	SETUP
3. RECORD	SETUP
4. EVENT RECORD	
5. EVENT	
6. PASSWORD	SETUP
7. HDD FORMAT	
8. FACTORY DEFAULT	
9. UPGRADE	

MOTION SETUP	
**MOTION FUNCTION	ON
**CHANNEL NUMBER	CH01
1. FRAME NUMBER	03
2. SENSITIVITY	010
3. MOTION ACTIVE	ON
4. MOTION AREA	SETUP
MENU, ESC: EXIT: ◀ ▶ : MODIFY	

MOTION SETUP

**MOTION FUNCTION (For all channel)

-ON / OFF

**CHANNEL NUMBER

-01 ~ 04

1. FRAME NUMBER

Detects moving objects bigger than DETECT WINDOW NUM, then start to record.

-1 ~ 32

2. SENSITIVITY Adjusts motion Detection Sensitivity.

-1 ~ 32

3. MOTION ACTIVE (For each channel)

-ON / OFF

4. MOTION AREA SETUP



Press direction buttons up/down to choose items.



Press values change button to change values.


> MOTION AREA SETUP < (Press LOCK button for help)

****CH01 AREA MASK****

◁ ▷ : WALK ON MODE
 1.2.3.4: SELECT CHANNEL
 ↑ ↓ ← → : MOVE SURSOR

ENTER: MASK OFF
 ESC KEY: QUIT

Press 1/2/3/4 numeric to select channel.
 Press ◁ ▷ value change button to change mode.



Press direction button to move cursor.
 Press ENTER button to on mask function or off.
 Press ESC button to quit.

WALK ON MODE: Set up single sections one by one mode on(SELECT).

WALK OFF MODE: Set up single sections one by one mode off (CLEAR).

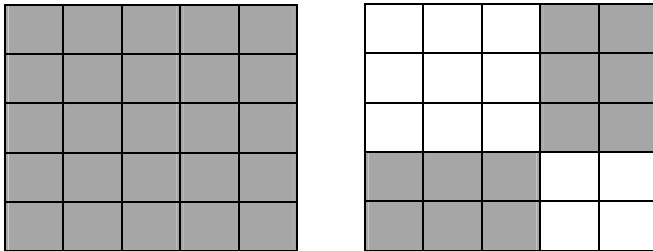
BLOCK ON MODE: Select by BLOCK area mode on(SELECT).

BLOCK OFF MODE: Select by BLOCK area mode off(CLEAR).

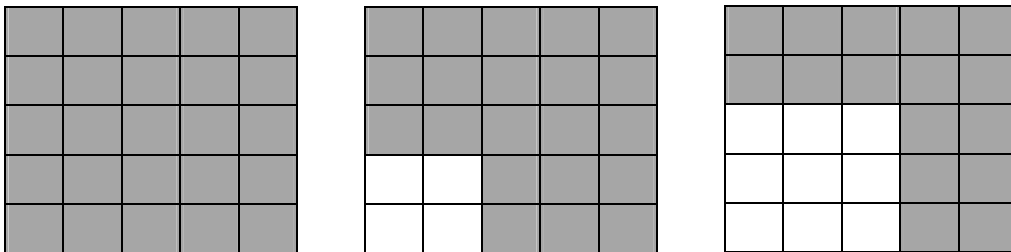
ALL ON MODE: Select all area mode on(SELECT).

ALL OFF MODE: Select all area mode off(CLEAR).

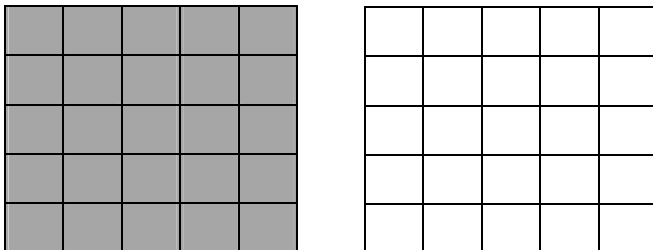
WALK ON MODE ↔ WALK OFF MODE. Press ENTER to clear or select each sections.



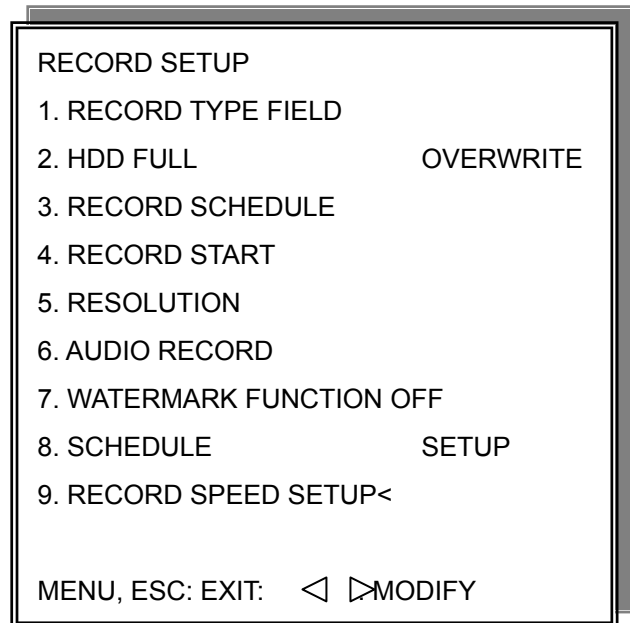
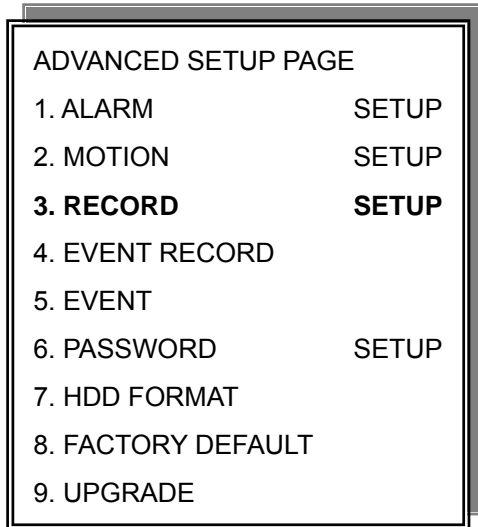
BLOCK ON MODE ↔ BLOCK OFF MODE. Press ENTER to clear or select sections by block.



ALL ON MODE ↔ ALL OFF MODE Press ENTER to clear or select all sections.



3. RECORD SETUP



RECORD SETUP

- 1) RECORD TYPE : FIELD / CIF
- 2) HDD FULL: When hard disk is full, DVR next step is kept overwrite record or stop record?
-OVERWRITE / STOP REC
- 3) RECORD SCHEDULE: Time SCHEDULE record mode is on or off.
-ON / OFF
- 4) RECORD START: Always record after power on.
-ON / OFF
- 5) RESOLUTION: Record image quality setup
- SUPER / HIGH / FINE / NORMAL / LOW
- 6) AUDIO RECORD: Audio sound effect records to hard disk.
-ON / OFF
- 7) WATERMARK FUNCTION
-ON / OFF
- 8) SCHEDULE SETUP
- 9) RECORD SPEED SETUP



Press direction buttons up/down to choose items.



Press values change button to change values.

Notice:

Normal record is Independent. It will not in conflict with event record.

>SCHEDULE SETUP<

- RECORD SETUP
- 1. RECORD TYPE FIELD
- 2. HDD FULL OVERWRITE
- 3. RECORD SCHEDULE
- 4. RECORD START
- 5. RESOLUTION
- 6. AUDIO RECORD
- 7. WATERMARK FUNCTION OFF
- 8. SCHEDULE SETUP**
- 9. RECORD SPEED SETUP



Press direction buttons to choose SCHEDULE items.



Press values change button to increase or reduce

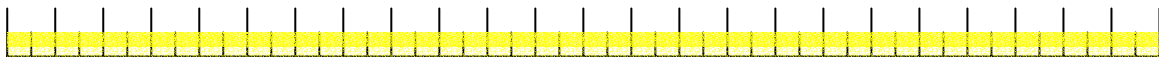
Factory default is everyday all schedules time on recording.

SCHEDULE SETUP

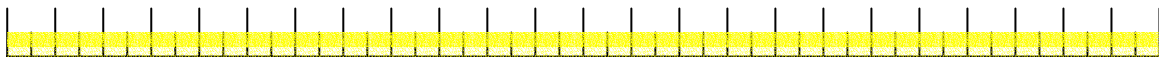
CURSOR STEP

30MIN / 5MIN

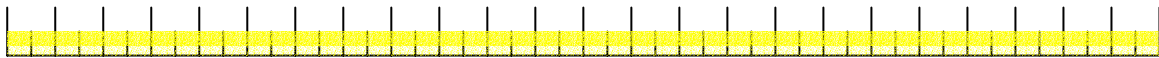
SUN



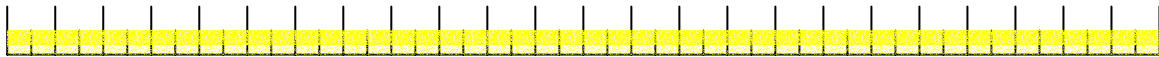
MON



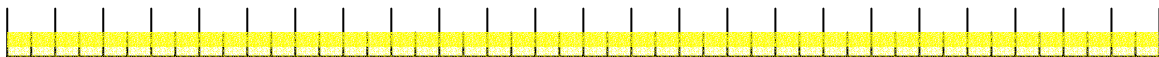
TUE



WED



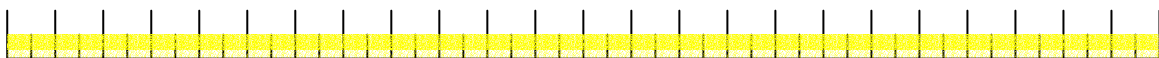
THU



FRI



SAT



Press direction buttons up/down/left/right to see date and time difference.



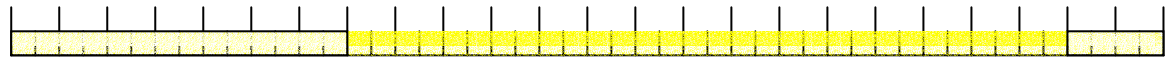
Press values change left/right button to change 30MIN or 5 MIN

SCHEDULE SETUP

30MIN

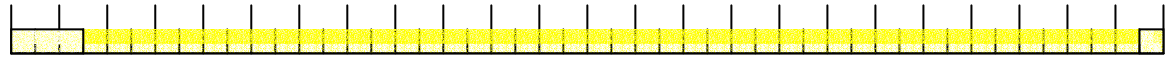
CURSOR STEP

SUN



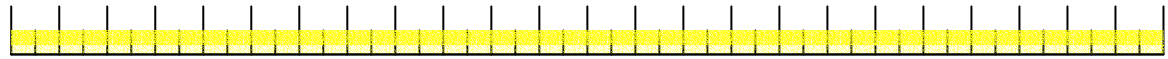
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

MON



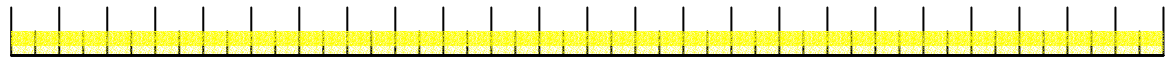
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

TUE



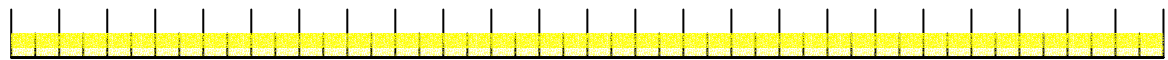
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

WED



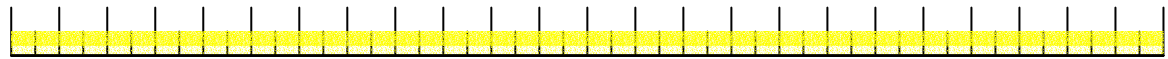
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

THU



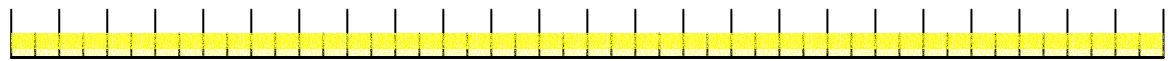
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

FRI



00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

SAT



00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
 00:30 01:30 02:30 03:30 04:30 05:30 06:30 07:30 08:30 09:30 10:30 11:30 12:30 13:30 14:30 15:30 16:30 17:30 18:30 19:30 20:30 21:30 22:30 23:30

For example: TUE ~ SAT, all day schedule time recording, but SUN 07:00 ~ 22:00 and MON 01:30 ~ 11:30 do schedule recording. User can press ENTER to see the schedule time area difference.

Schedule record mode, on the live mode, an "O" would shows on the left top of screen.

There is 3-color display.

Green: Schedule record mode on.

Yellow: Schedule record starts.

White: User press direction key "down" to pause schedule record. Press again to start record.

>RECORD SPEED SETUP<

- RECORD SETUP
1. RECORD TYPE FIELD
 2. HDD FULL OVERWRITE
 3. RECORD SCHEDULE
 4. RECORD START
 5. RESOLUTION
 6. AUDIO RECORD
 7. WATERMARK FUNCTION OFF
 8. SCHEDULE SETUP
 9. RECORD SPEED SETUP

- RECORD SPEED SETUP PAGE
- TOTAL SPEED: FULL / HALF / 20 fps / 10 fps / 4 fps
- CH 01: ON
- CH 02: ON
- CH 03: ON
- CH 04: ON

RECORD SPEED SETUP PAGE

TOTAL SPEED:

Field: FULL / HALF / 20 fps / 10 fps / 4 fps (NTSC), FULL / HALF / 16 fps / 8 fps / 4 fps (PAL)

CIF: FULL / HALF / 40 fps / 20 fps / 8 fps (NTSC), FULL / HALF / 32 fps / 16 fps / 8 fps (PAL)

CH 01: ON / OFF (Channel recording or not)

CH 02: ON / OFF

CH 03: ON / OFF

CH 04: ON / OFF



Press direction buttons up/down to choose items.



Press values change button to change values.

Notice:

Normal record is Independent. It will not in conflict with event record.

4. EVENT RECORD

ADVANCED SETUP PAGE	
1. ALARM	SETUP
2. MOTION	SETUP
3. RECORD	SETUP
4. EVENT RECORD	
5. EVENT	
6. PASSWORD	SETUP
7. HDD FORMAT	
8. FACTORY DEFAULT	
9. UPGRADE	

EVENT RECORD SETUP PAGE		
1. EVENT MOTION		OFF
2. EVENT ALARM		OFF
3. EVENT DURATION	0	10 SEC
4. RECORD SPEED		FULL
5. RECORD RESOLUTION		NORMAL
6. EVENT PRIORITY		OFF
7. PRE-ALARM RECORD		ON

1. EVENT MOTION -OFF / ON
2. EVENT ALARM -OFF / ON
3. EVENT DURATION 0 -10 SEC (01 ~ 999)
4. RECORD SPEED (Independent)
Field: FULL / HALF / 20 fps / 10 fps / 4 fps (NTSC), FULL / HALF / 16 fps / 8 fps / 4 fps (PAL)
CIF: FULL / HALF / 40 fps / 20 fps / 8 fps (NTSC), FULL / HALF / 32 fps / 16 fps / 8 fps (PAL)
5. RECORD RESOLUTION -SUPER / HIGH / FINE / NORMAL / LOW (Independent)
6. EVENT PRIORITY -OFF / OFF
7. PRE-ALARM RECORD -ON / OFF (3 seconds)



Press direction buttons up/down/left/right to choose items.



Press values change button to change values.

Notice:

Event record is Independent. It will not in conflict with normal record.

5. EVENT

ADVANCED SETUP PAGE	
1. ALARM	SETUP
2. MOTION	SETUP
3. RECORD	SETUP
4. EVENT RECORD	
5. EVENT	
6. PASSWORD	SETUP
7. HDD FORMAT	
8. FACTORY DEFAULT	
9. UPGRADE	

EVENT SETUP PAGE	
1.	MOTION EVENT
2.	ALARM EVENT
3.	VLOSS EVENT
4.	SYSTEM EVENT

1. MOTION EVENT ON / OFF
2. ALARM EVENT ON / OFF
3. VLOSS EVENT ON / OFF
4. SYSTEM EVENT ON / OFF

Notice: Function on or off to make an event to T-SRH playback EVENT LIST.

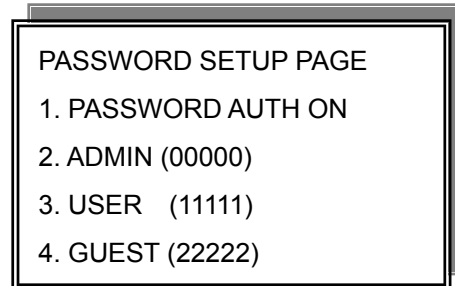
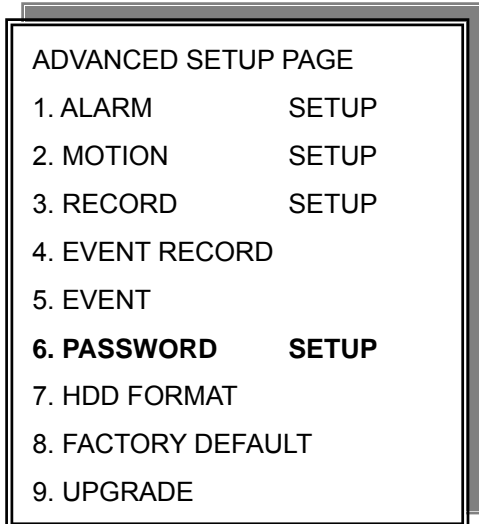


Press direction buttons up/down/left/right to choose items.



Press values change button to change values.

6. PASSWORD SETUP



PASSWORD SETUP PAGE

- 1. PASSWORD AUTH ON
- 2. ADMIN (00000)
- 3. USER (11111)
- 4. GUEST (22222)



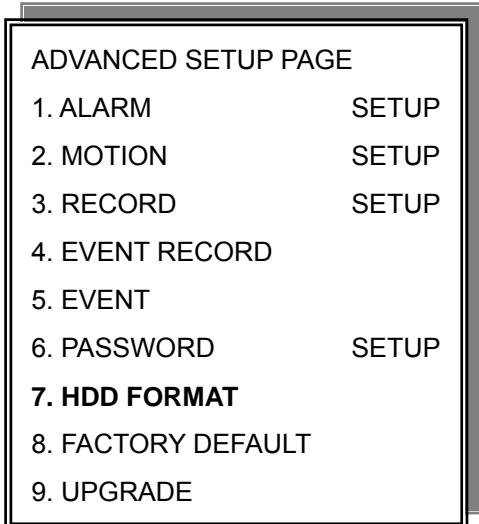
Press direction buttons up/down/left/right to choose items position.

User press 0 ~ 9 numeric to choose password.

Notice:

- 1. ADMIN level can setup all DVR menu functions.
- 2. USER level cannot setup ADVANCED page of DVR main menu function.
- 3. GUEST level cannot setup anything.

7. HDD FORMAT

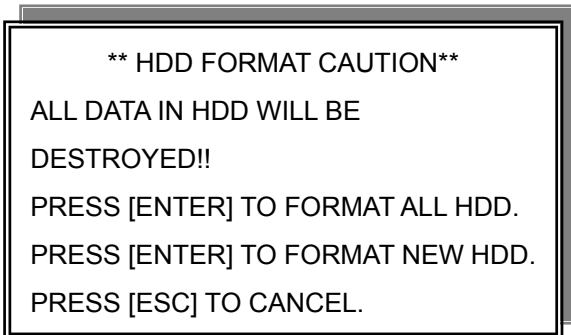


Press direction buttons up/down to
HDD FORMAT items position.

Press ENTER to format all HDD.

Caution: User can format HDD only when
all HDD stop record or playback.

→ HDD FORMAT CAUTION!! :



Press ENTER button to format hard disk.

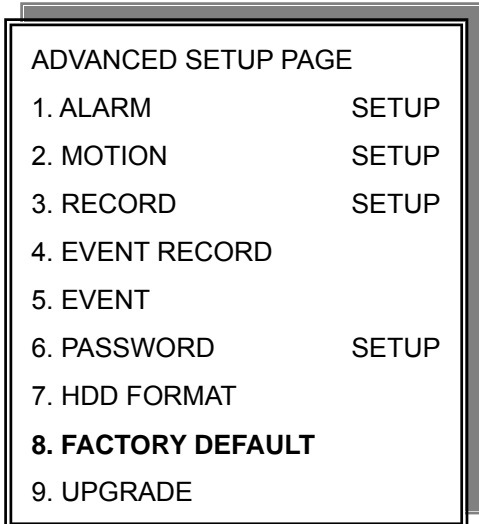


Press ESC button to cancel hard disk format

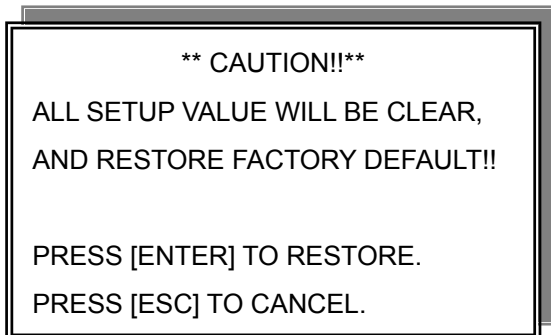
****PLEASE WAIT, HDD FORMATING.**

****HDD FORMAT, COMPLETED.**

8. FACTORY DEFAULT



Press direction buttons up/down to FACTORY DEFAULT items position.
Press ENTER to restore.

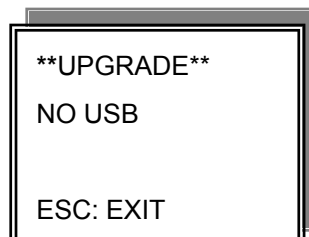
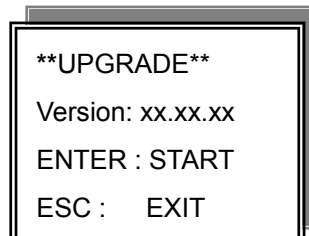
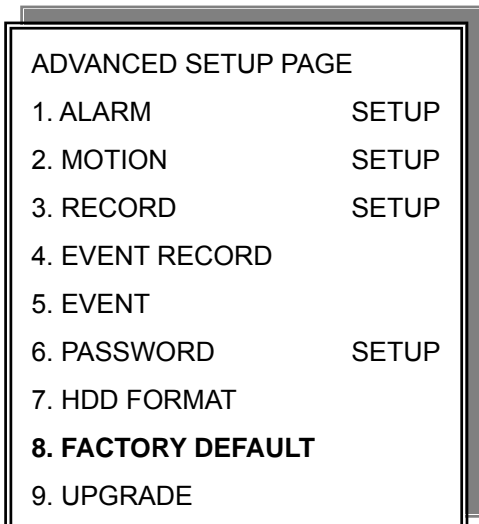


Press ENTER button to restore.



Press ESC button to cancel.

9. UPGRADE. If DVR cannot detect USB, reboot DVR.



Specification and configuration

Model	DVR045
Video I/F	NTSC/ PAL Auto Detection
Input	CH inputs 1.0Vp-p, 75ohm unbalanced (BNC Type)
Output	TV - monitor Composite (BNC), 1 TV - monitor (S-Video), 4 looping output (BNC)
Horizontal Resolution	80 TV Lines
S/N Ratio	More than 40dB
Color	6.7 Million
Monitoring Method	
Display Screen	1, 4 CH, PIP, 2 x Zoom, Freeze
Zoom	Live & PB Available, 2 x 2 zoom
Sequence	Available
Screen Quality	Full: 720(H) x 480(V) Active Pixels(NTSC); 720(H) x 576(V) Active Pixels (PAL) 1/4 Screen: 360(H) x 240(V) Active Pixels(NTSC); 360(H) x 288(V) Active Pixels(PAL)
Display Rate	120 frames
Recording/ Play Function	
Recording (Max)	Field: FULL / HALF/ 20 fps / 10 fps / 4 fps CIF: FULL / HALF / 40 fps / 20 fps / 8 fps
Record Quality	Super, High, Fine, Normal, Low
Compressed Picture	MPEG4
Picture Recording Method	CIF / Field
REC. Mode	Time-Lapse / Event
Playback Mode	Date/ Time search or event search
Other Function	
Operation Mode	Triplex
Motion Detect Area division:	16 x12, ON/OFF sector selectable. Motion detect recording
Alarm	4 alarm In / 1 relay Out
Back-Up	HDD Back-Up / USB
RS485	For control keyboard
Storage	2 IDE HDD
Audio Input	RCA x 4
Audio Output	RCA x 1
VGA Output	VGA x 1 (optional)

Mechanical

IR Remote Controller	Standard
Shuttle Control Input	X 1
Power Supply	DC 12V / 5A
Weight	N.W.:7.3 kg(TBD)
Dimension	430 (W) x 360 (D) x 72.6 (H) mm
Operating Temperature	41° F~104° F (5° C~+40° C)
Operating Humidity	Less than 90%

DVR system



DVR control PTZ dome (User needs to login if password protection is on)

KAY 0 : To PTZ control mode.

KEY 1 ~ 4 : Select camera.

KEY 5: Exit preset function.

KEY6 ~ KEY 9 / (Preset 1 ~ Preset 4): To preset position then preset setup mode on. (4 Preset setup support.)

KEY QUAD: Set the preset position.

Example:

1. Set preset 1, key 6, (P1) shows on right-up screen. Then move PTZ dome to any position wants. Key QUAD to finished. (P1)

2. Set preset 3, key 8, (P3) shows on right-up screen. Then move PTZ dome to any position wants. Key QUAD to finished. (P3)

KEY ZOOM: 2 functions. 1: ZOOM IN / 2.To PTZ OSD menu item select.

KEY FREEZE: 2 functions. 1: ZOOM OUT / 2.To PTZ OSD item value select.

KEY AUTO: A to B LINE SCAN

KEY MENU: To PTZ MENU OSD function

KEY ESC:IRIS OPEN

KEY LOCK:IRIS CLOSE

KEY +: Set LINE SCAN left side point.

KEY -: Set LINE SCAN right side point.

KEY PLAY: FOCUS NEAR

KEY REC: FOCUS FAR

KEY UP / DOWN / LEFT / RIGHT: Control PTZ moving.

Record Time Table: 80GB HD (Approximate Time)

Record Quality: Low

FPS	Full	Half	20	10	4
Hours	163 hr	243 hr	280 hr	379 hr	520 hr

Record Quality: Normal

FPS	Full	Half	20	10	4
Hours	113	194 hr	253 hr	357 hr	506 hr

Record Quality: Fine

FPS	Full	Half	20	10	4
Hours	62 hr	114 hr	158 hr	260 hr	423 hr

Record Quality: High

FPS	Full	Half	20	10	4
Hours	51 hr	96 hr	132 hr	225 hr	387 hr

Record Quality: Super

FPS	Full	Half	20	10	4
Hours	42 hr	79 hr	113 hr	197 hr	357 hr

1. Double click CD ROM, Video Viewer.exe.



2. Click Search to Live, then starts file search where user saved.



Click Open to open file then playback. Click Save to save .bmp file.

