User's Manual

DEFENDER™ SECURITY

#82-12895 Operation Manual

4-CHANNEL DUPLEX

DIGITAL VIDEO RECORDER



DEFENDER™ SECURITY
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1. INTRODUCTION

VOC's VX4SL system provides total video security solution for 4-channel digital surveillance system supporting duplex (simultaneous playback and record) functionality.

Either front panel buttons or remote control unit or mouse can operate all DVR menu setting. The functionality of each button both on remote control and front panel is exactly same.

2. PHYSICAL UNIT

2.1. Top Panel



2.1.1 Function Of The Top Panel

1). MENU/POWER — A) Long press: Turn on or turn off the LCD monitor.

B) Short press: Used for Menu Display/move the cursor left or right.

2). DOWN — Move the prompt of the parameters on the screen sub menu downwards.

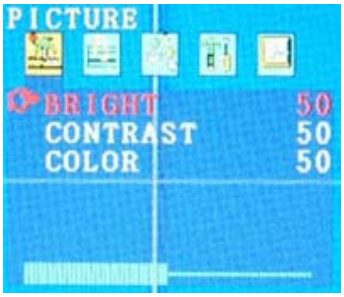
3). UP — Move the prompt of the parameters on the screen sub menu upwards.

4) + — Make the volume "+" or increase value.

5) — — Make the volume "—" or reduce value.

2.1.2 Menu Interface

When you need to adjust the parameters for the LCD monitor, you can short press "Menu/Power". The menu will be display on the LCD screen. Then short Press "Menu/Power" to move the cursor leftwards or rightwards to select the option that user want to modify. Press "UP" or "Down" to move the cursor upwards or downwards. Then, press "+" or "-" to increase value or reduce value. After finished the setting, press the "Menu/power" several times to confirm and exit.



PICTURE:

"BRIGHT": 0~100.

"CONTRAST": 0~100.

"COLOR": 0~100.



AUDIO:

"VOLUME": 0~100.



FUNCTION:

Press the button "UP" or "DOWN" to change the display mode - "NORMAL & DOWN" of the LCD monitor.

"ZOOM": 16:9、4:3.



SYSTEM:

In this menu interface, users can choose the video format of display.

"S-ROLOC": AUTO、NTSC、SECAM & PAL.



PRESET:

In this menu interface, users can close the screen automatically in two ways. First, sets for the time of dormancy, the screen will be closed automatically in stipulated time.

"SLEEP": 0~240 minutes. The value is increased or decreased by ten. The value of "sleep" indicates how long the LCD monitor will be turned off automatically if "OFF-TIME" is not set.

Second, sets for closedown time and time of starting the LCD monitor, the screen closes and reveals at corresponding time point.

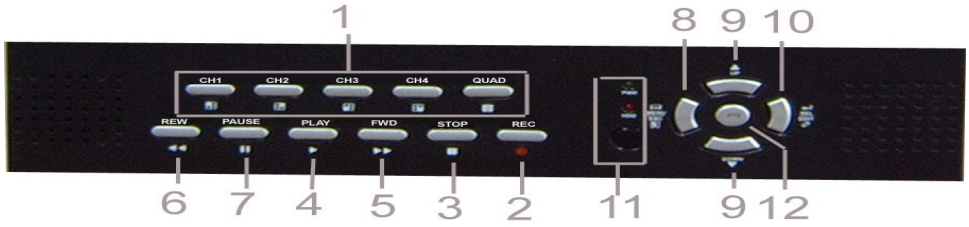
"TIME": --: --, the current time of system.

"OFF-TIME": --: --, the time of the screen turning off automatically.

"ON-TIME": --: --, the time of the screen turning on automatically.

When modify "TIME、OFF-TIME、ON-TIME", press "+" to adjust the value of minute and press "—" to adjust the value of hour.

2.2 Front Panels



A series of button on DVR front panel make a system to operate its basic functions, such as recording, playback, fast-forward, reverse, etc. For more details about the DVR menu, refer to " 5. SETUP".

** The front key panel feature can vary but the functionality of each button is same.

① Quad , CH1 , CH2 , CH3 , CH4

Use this button for full screen display for each camera channel or quad display on the monitor screen. If you push "Quad" camera selection button, DVR will display all 4 channels (cameras) at the same time in quad screen.

"CH1": Move the cursor up. "CH2": Move the cursor down. "CH3": Move the cursor left or reduce value when adjust parameters. "CH4": Move the cursor right or increase value when adjust parameters.

② REC

Press "REC" button to start manual recording. Then you will see this mark '●' on the selected channel of the screen, which means that the channel is now recording.

To stop manual recording, press "REC" again during recording mode.

③ STOP

To stop playback, press the "STOP" button.

④ PLAY

After recording, press "PLAY" button to start video playback.

Playback will start with the oldest unread video data and then continue playing.

⑤ FWD

This is the fast forward button. To play the recorded stream faster, press the "FWD" button.

There are three levels of fast forward playback speed.

(a) FF 1 (▶▶) : Play two times faster (x2) than the normal play.

(b) FF 2 (▶▶▶): Play three times faster (x3) than the normal play.

(c) FF 3 (▶▶▶▶): Play four times faster (x4) than the normal play.

To change the fast forward play back speed level, press the "FWD" button again.

⑥ REW

This is the rewind button. To play the recorded stream backward, press the “REW” button.

[NOTE]: The fast forward and reverse playback speeds will vary depending on the frame rate and record quality settings, as well as the number of channels recorded.

⑦ PAUSE

To pause the video playback, press the “PAUSE” button. Then the video displaying will be stopped.

To continue playback, push the “PLAY” button.

⑧ MENU/ESC

It displays menu option or to previous.

⑨ UP(▲) / DOWN(▼)

To change a menu field, use the “UP” or “DOWN” buttons.

⑩ SELECT/EDIT

Use this button to change values on main menu or sub menu setting.

⑪ LED Light

(a) GREEN: The DVR unit is powered up and running.

(b) RED: System is in Recording Mode or in Playback Mode.

(c) IR Remote Receiver

⑫ PTZ

Use this button to enter PTZ mode.

2.3 Rear Panel



① AC-DC POWER ADAPTER JACK

Connect the power adapter into DVR and plug the power cable into the wall.

Some DVR models do not have a power adapter so you may not see this. In case, just plug power cable from the behind the DVR into the wall. Below is the information of input/output voltage for the power adapter.

[Input: AC 100-240V, 50/60Hz, 1.5A / Output: DC +12V == 5A]

② AUDIO OUTPUT

Use “AUDIO OUT” port for speaker (mono) connecting. And this port is audio output for playback.

③ Power Switch

④ VIDEO OUTPUT

Use this port to connect DVR to the monitor. There is one video output. You can also connect one monitor at the same time, which will display the same video image on both monitor and LCD monitor. Also, you can use the video output port to connect VHS device for tape backup.

⑤ AUDIO INPUT

Use “AUDIO IN” port for microphone connection. If signal audio input is from channel 1, there will be audio output in channel 1 view and quad view. If signal audio input is from channel 2, there won’t be audio output until in channel 2.

⑥ PS/2 MOUSE PORT

Use this port for PS/2 mouse connection. If you have USB port mouse, use USB - PS/2 adapter to connect with this port.

⑦ THE POSITION OF INSTALLING HDD

⑧ VIDEO INPUT

Use this BNC port to connect cameras to DVR system. You might need BNC adapter for each (CH1-CH4) camera connection.

⑨ SENSOR / ALARM / RS485

Sensor input

You can use this sensor terminal block to install up to 4 motion sensors into DVR. If you add the motion sensor devices to your DVR, the video recording can be triggered by motion detection.

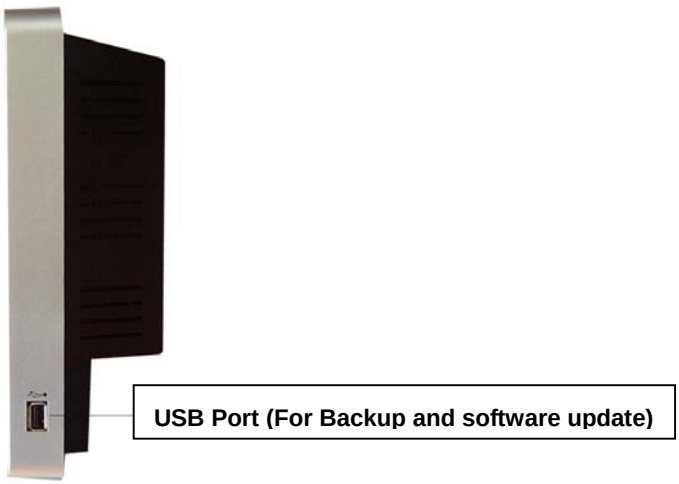
Alarm input

This is an alarm input terminal in case you need to attach an alarm device on the system.

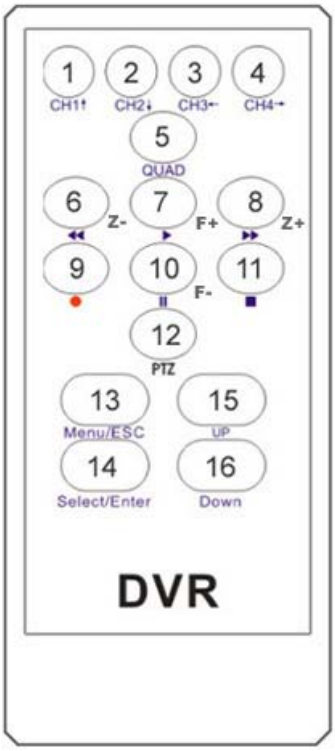
RS485

The two ports are RS485 power line ports. To control high-speed dome only RS485 line is connected to DVR.

2.4 Lateral Panel



2.5 Remote Control



1.CH1↑	Select or enlarge CH1 or Move dome up or Move cursor up
2.CH2↓	Select or enlarge CH2 or Move dome down or Move cursor down
3.CH3←	Select or enlarge CH3 or Move dome left or Move cursor left or Reduce value
4.CH4→	Select or enlarge CH4 or Move dome right or Move cursor right or Increase value
5.QUAD	Quad View
6.◄◄ (Z－)	Rewind or Zoom－
7.► (F+)	Play record list or Focus+
8.►► (Z+)	Forward or Zoom＋ or Channel auto sequence switch
9. ●	Manual recording or Stop manual recording or Level scan
10.▌▌ (F－)	Pause or Focus-
11. ■	Stop playing or Stop dome running
12. PTZ	PTZ Switch
13.Menu/ESC	Enter or exit setup menu
14.Select/Enter	Modify item or Increase value
15.UP	Move up prompt
16.DOWN	Move down prompt

3. GETTING STARTED

Install a hard disk drive into your DVR.

Connect cameras (up to 4) to DVR.

Connect other peripheral devices (mouse, USB Drive, external motion sensors or alarm) if necessary. And PS/2 Mouse must be connected to DVR before startup system.

Plug the power cord into the power jack on the wall.

Start TV Monitoring and Recording.

- □ Make sure that a hard disk drive and camera(s) are properly installed.
- □ The hard disk (**IDE**) jumper setting must be set to “**master** “ jumper setting.
- □ If the power is turned off while recording (i.e. a power failure), the DVR will enter “Power Recovery” modes at start up, detect that it has been shut down, and then reinitiate the recording process.

4. HARDWARE SETUP

4.1 IDE Hard Disk Drive Installation

(A) Make sure that HDD Jumper setting as “Master”



Before installing hard drive, set jumper as “Master”.

The master jumper setting varies depending on the hard drive manufactures.

Refer to manufacture’s manual for master jumper setting.

For example, the model of HDD is Seagate.

(B) Connect the ribbon cable (IDE) cable & power cable

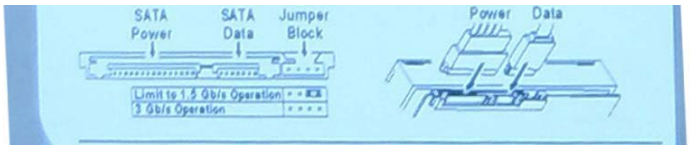


Back side of hard disk drive

4.2 SATA Hard Drive Installation

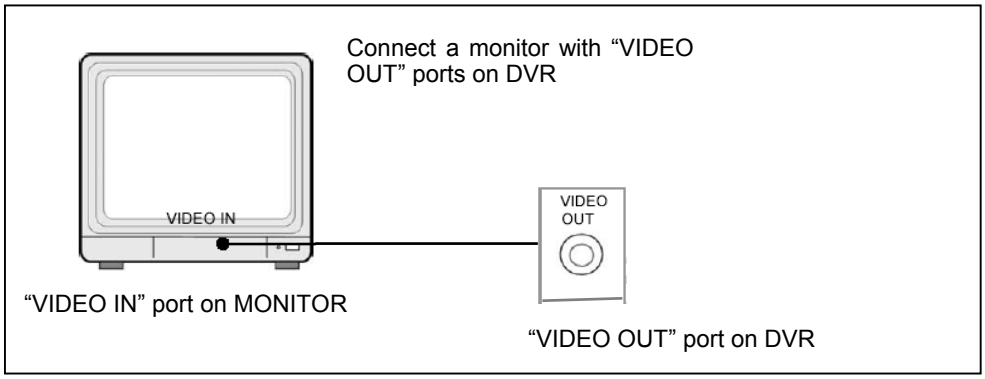
Connect the cables as follows.





4.3 Monitor Connection

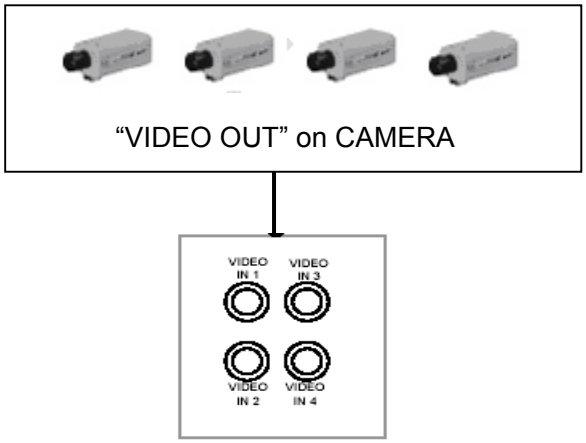
To display video image from cameras on the monitor, the DVR's video output signal should be transferred to your TV set or monitor.



Connect "VIDEO IN" of the monitor to "VIDEO OUT" of the DVR system.

4.4 Camera Connection

Connect between "VIDEO IN" of your DVR and "VIDEO OUT" of camera with video cable and plug in the camera's power adapter.



"VIDEO IN" on DVR

4.5 Sensor Connection

Our 4 CH DVR system can connect up to four sensors.

There are two steps for sensor installation.

(a) Connect the sensor signal lines to the signal input terminal.

(b) Connect the sensor power lines to the appropriate power source.

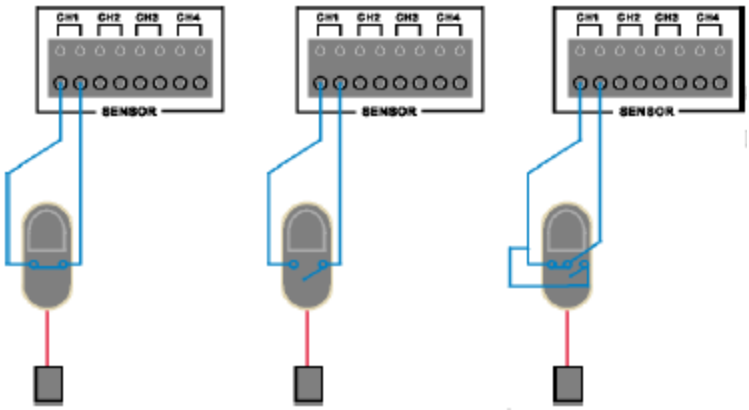
In general, there are three different types of sensors available in the home electrics store, where you can buy them. (1) Normal-Close. (2) Normal-Open. (3) Normal-Close & Open. Below is the brief diagram about how the each type of sensor is installed into DVR. The procedure for sensor install action is as shown below.

* After you install sensor(s), change the recording mode as "Sensor record" or "MD &

Sensor record" on "RECORD SCHEDULE" in the DVR menu to enable sensor recording.

* Only the corresponding channel will record when a sensor trips, (e.g. sensor one corresponds with channel one).

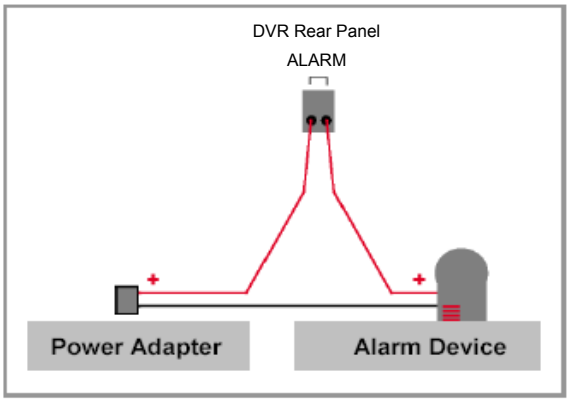
(1) Normal-Close **(2) Normal-Open** **(3) Normal Close & Open**



4.6 Alarm Connection

The DVR has an internal switch for sounding alarm. The switch is normally open, but when the sensor is triggered, the alarm is activated as well. The circuitry is as follows.

First, connect the alarm power lines to the alarm switch terminal. Second, connect the alarm power lines to the appropriate power source.



4.7 Mouse Connection

Connect PS/2 mouse with the port below on the system. And PS/2 Mouse must be connected to DVR before startup system.



[PS/2 Mouse Port]

4.8 DVR Power Connection

Connect a DVR power adapter to the adapter jack at the rear panel of DVR unit.

And turn the power switch on. It will boot up the system.

If users install a new hard disk drive, it will ask for HDD formatting before a system starts to run (**Below Fig**). Choose format option pressing “PLAY” button.



Below is the information of input/output voltage for the power adapter.

- ✧ Input: AC 100-240V, 50/60Hz, 1.5A
- ✧ Output: DC +12V == 5A

5. SETUP



After installing a new hard drive on the system, user had better to format the hard disk drive first. If the system includes login window, and there will be three password levels in the system, including **admin** (highest), **operator**, and **guest** (lowest). **If the user does not login the system, he can only view live video display. And when the user login the system, if he can’t operate the system in one minute the system will logout automatically.**





The system allows up to four user accounts. The administrator can set up the login name, password and level for each user. (Please refer to Section 5.6.2 for Account Setup.)

The **admin** can operate everything. The **operator** can operate anything except examining user accounts, formatting HDD and modifying his password level. The **guest** can operate live video display and image playback, or modify some parameter value that is independent of recording. If user has no right to modify parameter value, there will be an identifier " " on top right corner of the screen.

After system boot-up, hold a right mouse click button and there will be login window. Hold a left mouse click button to click the order of "Account", and input correct account. Then left click the order of "Password" and input correct password. At last left click "Login" to enter system. There is one factory-preset login "**account/password**" "**admin/111111**" at **admin** level. The user can use it to login the system for the first time.

After login the system, hold a right mouse click button and there will be suggestive window options on the monitor (**Fig (a)**). Hold a left mouse click button to click the icon " ". Or press the MENU button to make any changes of DVR settings. You will see the screen below on the monitor (**Fig (b)**).



Fig (a)



Fig (b)

Suggestive window options:

Channel 1 view

Channel 2 view

Channel 3 view

Channel 4 view

All channel view

● Manual recording or Stop manual recording

▶ Play record list

PTZ Switch

⇌ Channel auto sequence. The iron " ⇌ " won't display if the order of "auto sequence" is "OFF".

Menu option

Logout

The DVR Front Panel or Remote Control

Press the “UP” or “DOWN” key on the DVR front panel or remote control to move the cursor. Press “SELECT” button on the front panel or remote control in order to change the settings. In the MAIN MENU, the cursor “ ▶ ” will be shown on the screen right next to each sub menu. To previous, press “MENU” button on the front panel or remote control.

The Mouse Control

Move the mouse up or down to move the cursor. Hold a left mouse click button to change the settings. Click a right mouse to previous.

5.1 CAMERA





Use this option for video color adjustment for each channel (1,2,3,4). Go to DISPLAY option to enable or disable for screen display of each camera. Modify camera name of each channel that user wants to.

5.2 RECORD



Use this option to choose the channel (1,2,3,4) for recording. Only selected channel will be recorded no matter how many camera channels are displayed on the screen.

A: [RECORD FRAMERATE]

Change the record frame rate for each channel. The higher the record frame rate, the more natural movement you will see while playback.



Independent each channel frame rate adjustment is possible. System default value is **12** frames per second with each channel, which means the system will record 48 frames per second with all channels. User can set frame rate as **3~25** frames per second with each channel. The max value of total frames per second with all channels is **50** frames.

Press button [SEL]/ [CH4] or hold the left mouse button to click icon "►" to increase the record frame rate for each channel. Press button [CH3] or hold a left mouse button to click icon "◄" to decrease the record frame rate for each channel.

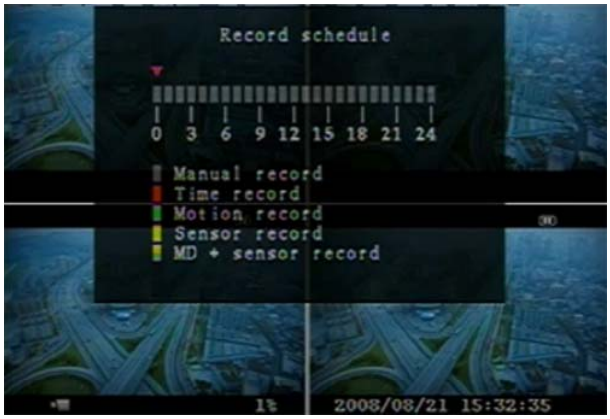
If you make the record frame rate off, the channel won't record.

B: [RECORD QUALITY]

Choose record quality among 1 / 2 / 3. The best record quality is 3, and the lowest record quality is 1. The higher the record quality is, the higher the video image quality is well you playback. Higher quality cost more hard disk space. Record frame rate, record quality and hard disk space will affect total record time of DVR system.

C: [RECORD SCHEDULE]

Notice: To start motion record, make sure the period that you intend to record is "▮" in the "record schedule" menu. To start sensor record, make sure the period that you intend to record is "▮" in the "record schedule" menu. And to start motion & sensor record, make sure the period that you intend to record is "▮" in the "record schedule" menu.



Press 「Up」 or 「Down」or move the mouse to move the prompt ,and press 「SEL」or hold a left mouse button to adjust video record method during each time period. Also user can adjust the same record method during the whole time periods synchronously, press [QUAD] button in the DVR front panel or remote control, or hold a left mouse button to click the time period (24:00:00).

- **Grey bar:** No record will be made for this time period if user can't activate manual recording.
- **Red bar:** The time period with a red bar will activate continuous recording mode (Time record) unless there is any manual stopping during recording during that time.
- **Green bar:** The time period with a green bar for built-in motion recording (MD). (See also the following chapter "MOTION DETECTION")
- **Yellow bar:** The time period with yellow bar will activate external sensor recording.
- **Half-yellow and half-green bar:** The time period with half-yellow and half-green bar will activate the combination of built-in motion (MD) recording and external sensor (Sensor) recording. (See also the following chapter "SENSOR")

5.3 ALARM

Using SELECT button or hold a left mouse button to click icon "◄" / "►", adjust parameters of each option.



A: [ALARM DURATION]

It sets the alarm duration time (in seconds) after alarm is activated.

Value at "05、10、15、20、25、30、CONT、OFF"(in seconds). Default at "OFF".

By changing the value in the ALARM DURATION, you can adjust how long the alarm will last in seconds. The alarm device should be installed.

B: [BUZZER DURATION]

It sets the buzzer duration time (in seconds) after alarm is activated.

Value at "05、10、15、20、25、30、CONT、OFF"(in seconds). Default at "OFF". When "buzzer duration" is "cont", the buzzer will work continuously.

C: [EVENT REC DURATION]

It sets the record time of duration (in seconds) after sensor recording or motion recording or MD & sensor recording is activated.

Value at "05、10、15、20、25、30"(in second).



D: [SENSOR]

Activate / deactivate or choose the type of sensor.

There are three different modes for sensor setting**:**

N.C (NORMAL-CLOSE) & **N.O** (NORMAL-OPEN) &

NONE.

Select “None” to deactivate sensor recording or if there was no sensor installed in DVR system.

Chose the type of sensor (N.O or N.C) installed in DVR.

E: [MOTION DETECTION]



[CHANNEL]

Select the channel (1,2,3,4) for recording mode by internal motion.

[SENSITIVITY]

It adjusts the sensitivity of the built-in motion sensor on the DVR system while recording. The higher the number, the higher the sensitivity is. Value at “1、2、3、4、Off”. The maximum sensitivity level is 4.

[MOTION AREA]

Use this option to select the range of motion detection area.

Use the keypad button, remote control button, or mouse click to assign the area.

The keypad and mouse control instructions are below.

[Using keypad or remote control button]

Press [SEL] once to pitch on the area, press [SEL] twice to cancel the area.

CH1 - Up / CH2 - Down / CH3 - Left / CH4 - Right

[Using Mouse button]

While holding a left mouse click button, move the mouse to select, deselect, or reselect the motion detection area for recording.

By the way, the area only can be selected from up to down and from left to right. When the block is covered by blue shadow, it’s active to record. When the block is transparent, it can’t be recorded.

After completed the motion area setting, press “MENU” button or hold a right mouse click button to exit.

To start Motion Record, user must complete the “Motion area” setup.

5.4 SCREEN

[BORDER]

User can make the white borderline around each channel to appear or disappear by using this option to be “on” or “off”.

[AUTO SEQUENCE]



This is for auto screen switch rotation.

Value at “Off、1~10(in seconds)”. Default at “Off”.

[VIDEO ADJUSTMENT]

You can move the entire video screen up, down, left, and right using this option.

Keypad assignment in the front panel or remote control is below:

－CH1 for up, CH2 for down, CH3 for left, CH4 for right.

Mouse function:

Hold a right mouse click button, there will be some irons on the screen as follows “  ”. Hold a left mouse click button to click each iron to select.

－“▲”for up, “▼” for down, “◄” for left, “►” for right, “  ” for ESC.

5.5 AUDIO



Make the record “ON” to enable sound recording when a microphone device is attached in AUDIO INPUT port on the system.

Adjust volume for speaker and the intensity level of sound recording. To make the sound enabled for speaker, leave the mute “OFF”.

5.6 SYSTEM



Fig (c)



Fig (d)

In this menu, you can see the information of the hard disk drive installed on the system,

change the system password, adjust keypad tone, browser event list or adjust current time on the system.

If user login the system at **admin** level, the menu bar will be displayed as **Fig (c)**. The user can enter into the order of "**Account**" to examine all user accounts, add or delete user that he wants to (Please refer to section 5.6.2 for account setup).

If user login the system at **operator** or **guest** level, the menu bar will be displayed as **Fig (d)**. The user can only modify its own password. (Please refer to 5.6.3 for password setup)

5.6.1 HARD DISK SETUP



[OVERWRITE ENABLED]

If you choose Yes, recording continues and overwrites previous recording when hard disk drive space is full.

If you choose No, the recording stops when the hard disk drive is full. It won't record until "overwrite enable" is "Yes".

[FORMAT HDD]

If you format the hard disk drive, all the video data stored on the hard disk drive will be deleted. Remind that the system has no restore option once the hard drive is formatted. When you choose this option, it will ask for password before formatting. The default password is "111111". Type the password and press any key button.

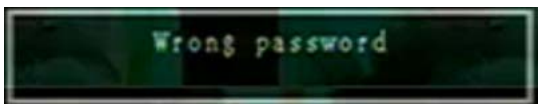


When HDD is successfully formatted, you will see the message below blinking.





If the password is incorrect, you will see the below message blinking. Then try to type right password again.



5.6.2 ACCOUNT SETUP







Only user log in the system at Admin level, the Account Setup allows the administrator to add new users, delete existing ones, and modify the user's name/password/level. The system allows up to 4 user accounts.

[Account]/[Password]

In setup Menu display, move the cursor to change the highlighted option to Account, and then press [SEL] to call up Account/Password as shown. All numbers, letters and sign in the pane can be used as user account or password. Press 「SEL」to input value, and move the prompt to the option of "ENTER", press 「SEL」 to confirm.

— CH1 for up, CH2 for down, CH3 for left, CH4 for right, Press "Shift" for change characters.

[Level]

Move the cursor to change the highlighted option to Level, and then press [SEL] to adjust user level (**operator/guest**).

5.6.3 PASSWORD SETUP

The default password is 111111. All numbers, letters and sign in the pane can be used as password. Press 「SEL」to input value, and move the prompt to the option of "Enter", press 「SEL」to input current password.

— CH1 for up, CH2 for down, CH3 for left, CH4 for right.



And the same operation measure to input new password and confirm password.

When password change succeed, user will see the below message blowing.



When password change fail, user will see the below message blowing.



5.6.4 CLEAR ACCOUNT INFO

If you choose ON, the account information will be cleared when you logout the system. If you choose OFF, the account information will be kept when you logout the system.

5.6.5 KEYPAD TONE

Make the keypad tone “ON” or “OFF” to enable or disable keypad tone during operating.

5.6.6 TIME SET



You can adjust the current time, date and year at any time by region. Set your region first and set the current time so that the video back-up data can be played without time shifting later on.

Date and Time format are below.

*** 2008/08/08 — year/month/day

*** 01:01:00 — hour: minute: second

To move the cursor on the screen, use “UP” and “DOWN” key on the DVR front panel or remote control and then press “SELECT” button to change the numeric value. Once you finish time setting, press “MENU” button. Then press “DOWN” key and “SELECT” button to apply the new time set. Or move the mouse to move the cursor up and down, hold a left mouse click button to change the numeric value. Once you finish time setting, hold a right mouse click button to return. Then move the mouse to the order of “Apply” to left click to apply the new time set.

5.6.7 EVENT LIST

EVENT LIST function enables playback by event. On the Event List menu, it shows all past

recorded video, start time and end time of each recorded video, and etc showing recording year/date/time in list. The HDD can be stored 300 pieces of event in it at most. If the events are over 300 pieces, user can play previous event according to input time period if the data hasn't been over-written.



To playback by EVEN LIST, using [UP]/[DOWN] or channel number (CH3 for Page Up or CH4 for Page Down) key on the front panel or remote control, select the event that you want to playback and press "PLAY" button. Another way move the mouse up and down or click the left mouse button ("◄" for Page Up or "►" for Page Down), select the event that you want to playback and double click the left mouse button. Then it wills playback the recording video data.

5.6.8 PTZ SETUP

Adjust the RS485 setting depending on the PTZ camera that you have.

Our DVR system supports PELCO-D protocol and PELCO-P protocol. Then we can see the diagram that is on the left. For example, we select the channel 1 to set up. Dome's address is 1. Protocol makes use of **PELCO-D**. Baud rate is 2400 and Dome's speed is 7.



CHANEL: Select a camera channel where PTZ camera is connected.

ADDRESS: Dome's address "**0-255**" (**PELCO-D**) and"**0-31**" (**PELCO-P**).

PROTOCOL: Including "**PELCO-D**", "**PELCO-P**". Setting the protocol according to the dome's protocol.

BAUD RATE: Press "**SEL**" button to select the value **1200**, **2400**, **4800**, **9600**, **19200**bps.

SPEED: Having "**1-10**" to select.

PRESET: If protocol is **PELCO-D,** preset includes "**1-32**"**.** If protocol is **PELCO-P,** preset includes "**1-255**"**.** When it displays **0**, it suggests that the place's preset is not using.

Button function On The Front Panel or Remote Control:

「Select」:Make sure the setting.

「Up」「Down」:Move the cursor.

「SEL」:Increase Value.

「REC」:Reduce Value or Auto-scan.

「Ch1」「Ch2」: Move the dome upwards and downwards.

「Ch3」「Ch4」: Move the dome leftwards and rightwards.

「STOP」:Stop the dome running.

「REW」「FWD」:Zoom.

「Pause」「Play」: Focus.

Mouse function:

Left Mouse: Click the icon "►" or "◄" to adjust value.

Right Mouse: Previous.

Preset setup:

User must set preset at first. The address, protocol and baud rate of DVR is consistent with Dome's. You can make use of buttons to control dome and save the preset.

If user wants to call preset, user can modify the value of preset to come true. Press「Select」button to finish the order of "call preset".

User can perform auto scan when he saves the presets within cruise locus. Then he needs to press 「Select」button to finish the order of "auto scan", the dome will run all along unless user presses「STOP」button to stop it.

PTZ Mode:

Enter into PTZ mode and hold a left mouse click button, there will be a piece of message on the screen (Right FIG).



Icon function:

"▲▼►◄": Move the dome upwards/downwards\leftwards and rightwards.

"■": Stop the dome running.

"": Focus.

"": Zoom.

"  ": Auto scan.

“  ”: Previous.

Attention:

User can start-up automatic scout in “PTZ SETUP” menu or PTZ mode. It doesn’t stop when user exits. If user wants to stop scouting, press 「STOP」button in PTZ mode.

During live view, user can press「PTZ」button to enter PTZ mode, and then user can operate to control the dome according to the method of above paragraphs.

5.6.9 F/W UPGRADE

This menu is for firmware upgrade of DVR system through USB host (USB memory stick) connection, you can simply upgrade the system once you connect the USB memory stick that contains a firmware file.

[CAUTION]: 1. Do not turn off the system while the system is upgrading. Otherwise, it will cause the breakdown of the system that needs a special recovery process.

2. If you don’t install a HDD in the DVR, the system can’t be upgrade.
3. Before the system is upgrade, you must stop recording.

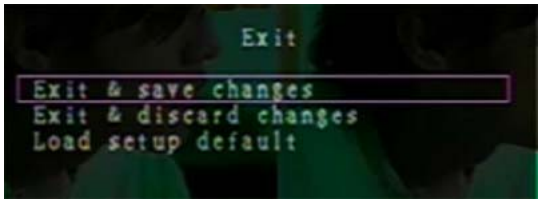
5.7 LANGUAGE

Our system supports multi-language OSD. You can choose either English、Italian、Polish、Spanish 、France、Greece、German、Dutch 、Portuguese and Turkish for display menu on the screen. On the menu of “Language”, you can move the cursor to change it by pushing “SELECT” button on the front panel or remote control, and also can move the mouse to single left-click to select the language.



5.8 EXIT

After you change setting on DVR menu, you need to confirm the changes under EXIT menu.



[EXIT & SAVE CHANGE]

Save change and go back to main screen.

[EXIT & DISCARD CHANGES]

No change and go back to main screen.

[LOAD SETUP DEFAULT]

Load default setting.

6. PLAYBACK WITH TIME SEARCH FUNCTION



This is an enhanced playback option, which enables the user manually to adjust a specific starting time for playback.

[Keypad Control]:

In order to playback with time search function, press "PLAY" button on front panel or remote control first. And then press "SELECT" key to change the value of the playback start date & time and press "PLAY" button again. The playback will start from the date & time indicated by the user.

[Mouse Control]:

Hold a right mouse click button and left click the icon "►". And then press the left mouse button to change the value of the playback start date & time and press the right mouse button. Then hold a left mouse button to click "Search", the playback will start from the date & time indicated by the user.

7. BACKUP via USB memory stick

Our 4-channel DVR system has an enhanced back-up features so that it's possible to transfer the video data image recorded on the hard drive to USB memory stick drive. Before you back up a stream of video data, have the USB memory stick to be ready and attaché them into DVR system.

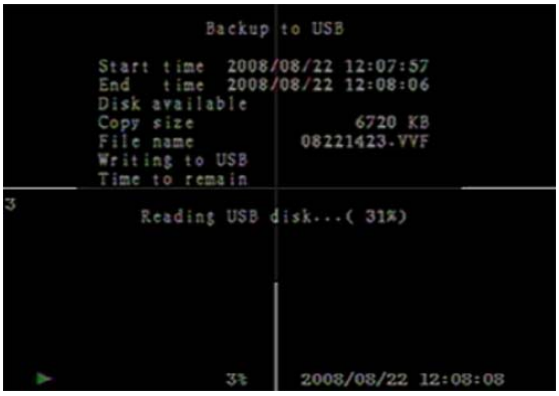
In order to save the video data with these back-up devices, you should first start with playback. And then press "MENU" button. Use "UP" key or "DOWN" key move the prompt, then press "SELECT" button to set start time and the end time of the recorded video data, which will be saved on back-up devices. If you want to setup the end time faster, you can press the button [►►FWD] to change the play speed that you want, and then press [DOWN] to select end time again. After setting the time of backup, move the prompt to the option "USB copy", then press "SELECT" button to backup the video data on USB stick.

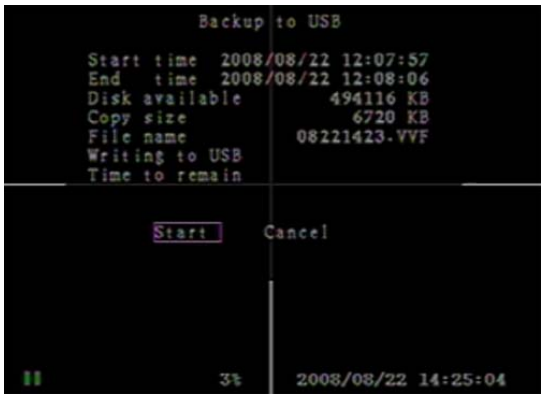
After playback, press "MENU" button. Then using "UP" and "DOWN" key to set the time period of recorded video data that you want to save on the back-up devices.



USB copy:

Move the prompt to “USB copy”, and press “SELECT” button or hold a left mouse click button to back up a stream of video data on USB memory stick.

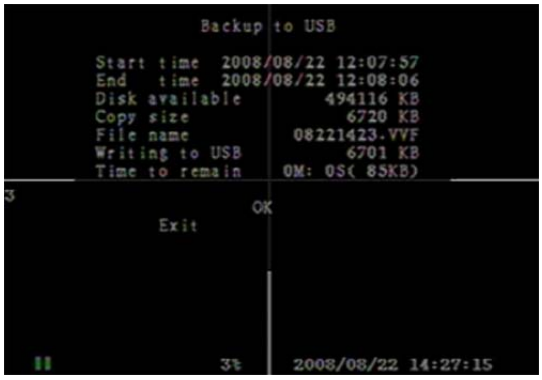




It will take a few minutes to write the video data on USB memory stick. The file size number is going up until it’s done with the message below.

WRITING…

Then it will show the following message on the screen.



FIXATING…

Take out the USB memory stick and attach it into your PC when it’s done.

Press “PLAY” button to continue with a system.

8. RECORDING LENGTH

Video System is “PAL”. Estimate record time basing on 320G Byte HDD.

The highest record quality is 3 and the lowest record quality is 1.

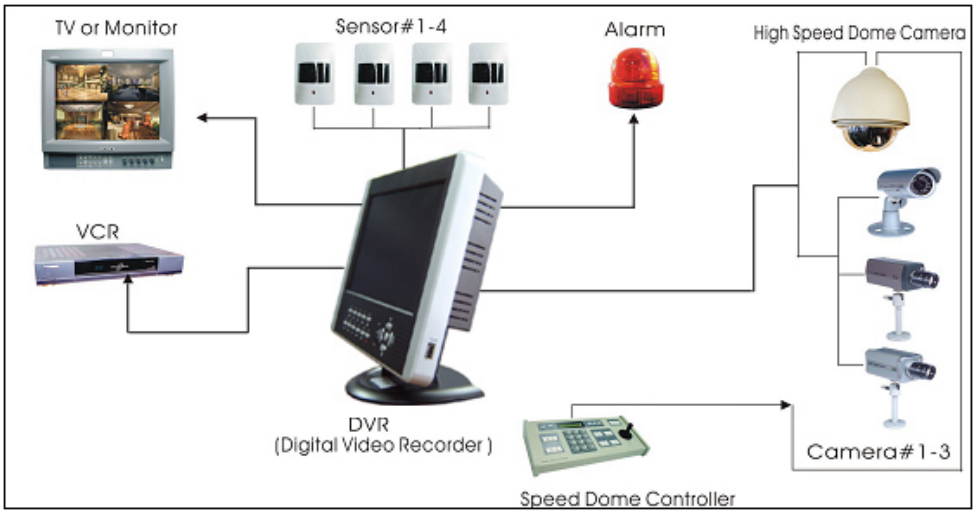
Record Speed	REC Quality	DATA RATE (GB/Hour)	Record Time (Hour)
50F/Sec	3	4.4	73
	2	2.8	114
	1	2.3	139
25F/Sec	3	2.4	133
	2	1.6	200
	1	1.3	246

9. SPECIFICATION

ITEM		DESCRIPTION	
Video Format		NTSC / PAL	
Operation System		Linux	
Camera Input Channel		4 channel Composite BNC	
Video Output Channel		1 channel Composite BNC	
Recording Frame Rate	NTSC	Max 60 fps (Total) Max. 30 frames/s (Each Channel)	
	PAL	Max.50 fps (Total) Max. 25 frames/s (Each Channel)	
Record Mode		Time schedule, Motion detection, Sensor activated, Motion detection & Sensor activated	
Resolution	Display	NTSC：720 x 480 PAL：720 x 576	
	Recording	NTSC： 640×224 PAL： 640×272	
Compression Method		Enhanced MJPEG	Video Quality: Low@13K Bytes; Normal@ 16K Bytes; High@20K Bytes.
HDD Support		Over 1.0TBytes	SATA or IDE ATA –100 Interface HDD×1
Sensor, Alarm		4 Input (Normal Open / Normal Close) 1 Output (Alarm) (12 Pin DIP Switch) Camera Signal Loss Alarm 2 Pin for RS485 control Pan/Tilt/Zoom	
PTZ（RS485）		YES	PELCO-D、PELCO-P
Audio Input		2 Channel Composite RCA	
Audio Output		1 Channel Composite RCA	
USB		YES	For media Backup and software upgrade
OSD		Support multi-language	
38KHZ Remote Control Unit		Optional	
PS/2 Mouse		Optional	
Power Input		100-240VAC/DC 12V , 5A（Adapter supplying）	
Dimension		Length 300mm * Width 290mm * Height 70mm	

10. APPENDIX

10.1 System Connect Sketch Map



10.2 Fitting Come Along With DVR

1. Power Adapter	1pcs	
2. Power Cord	1pcs	
3. Remote Control (Optional)	1pcs	
4. User Manual	1pcs	
5. USB Drive CD	1pcs	
6. Mouse (Optional)	1pcs	
7. Batteries Of Remote Control	1pcs	

10.3 Model 38xx series used the compatible USB Stick.

In case the noise occurs on USB line due to a variety of reasons such as power noise, it might cause the error while data transferring process. In this case, it require re-transfer the date on memory stick. If the device can process things normally for this kind of exceptional case, things are okay. However, for some case, it doesn't operate normally.

For example, in case of PC, it might not cause any problem under this kind of situation because it is immune to process this kind of exceptional cases. However, in case of our products, they work only with the limited resources, which ends up with restore-impossible situation.

WORKING DEVICE LIST

MAKER	MODEL	SIZE
SONY	MICROVAULT (SOK-USM1GJ)	1GB
SAMSUNG	SUM-LCB1	1GB
TRANSCEND	JF V30	2GB
APACER	Weblink (SYE5003358)	2GB
SANDISK	CRUZER micro	4GB
FLEX	FD-02	1GB
KINGSTON	Data Traveler	2GB
KINGSTON	Data Traveler	1GB
LEMON	LEMON USB Drive	1GB