



*LCD With Built-in DVR+4CCD Cameras*

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*User Manual*

MODEL QT17DVR4C



Digital Peripheral Solutions Inc  
8015 Ecrystal Drive  
Anaheim, CA 92807  
1-714-998-3440

Q-SEE Tech Support  
IN USA  
MONITOR:9am-5pm PST  
TEL:1-899-998-3440  
[Email:ts@dpsi-usa.com](mailto:ts@dpsi-usa.com)  
[Website:www.q-see.com](http://www.q-see.com)

Alarm	Motion <b>Detection</b>	192 detecting areas can be set, and 16 levels sensitivity adjustable
	Alarm input	Four channels alarm ( On/off value ) input independently
	Alarm input solutions	Open/ close circuit optional
	Alarm Output	One channel linkage alarm output, one channel power troubles alarm output, one channel other troubles alarm output Relay on/off value: 1A 120VAC/24VDC, longtime on/off optional
Telecom	Serial interface	RS485 signal, platform decoder can be connected outward.
	Serial interface	RS232 universal serial interface
	Network Interfaces (optional)	RJ- 45 10M/100M Ethernet interface
Network interface	Network Transport protocol	Support TCP/IP
	Network Transportation ways	Dial up access、ADSL、ISDN、LAN、CAN
	Browsing Solutions	Software included
Others	Clock	Built - in hard clock and permanent calendar
	Power	AC90 ~ 250
	Power Consumption	Max: 55W
	Video System	Universal video system
	Max Brightness	300cd/m <sup>2</sup>
	Max Contrast	450:1
	Response Time Tr/Tf	Tr+ Tf= ( 16ms )
	Visual Angle	170°/150°
	Weight	22.3 ib
	Dimensions ( W×H×D)	8.2× 18.6× 22.9

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## Camera Specification

Camera Features
1/3" Color CCD
Resolution 420 TV Lines
Weatherproof
12 IRLEDS for Night vision

## Main specifications for the system

Tube	17" 4:3 TFT/LCD	
Video	Video Input	Four Channels Independent Input 1.0Vp-p, 75Ω BNC
	Video Output	Two Channels PAL/NTSC output, 1.0Vp-p, 75Ω BNC, Multiple Video Signal One Channel VGA display interface output
	Video Display	Any Single picture, built-in quad display
	Video Standard	PAL system 25 frames/second CCIR625 lines 50 fields NTSC system 30 frames/second CCIR625 lines 50 fields
	System Resources	Real time recording resources, one or four channels play backward can be realized at the same time; one or four channels monitoring, network real time monitoring
Audio	Audio Input	Two channels independent input 600Ω RCA
	Audio Output	Two channels independent output 600Ω RCA
	Basic Output Gain	1.0-2.2V
	Distortion Plus Noise	≤ -30dB
	Recording Solutions	Volume and Image are Synchronized
	Audio Compression	MPEG-1 LAYER2
System	Operating Language	English
	Operating Interface	OSD menu
	Password control	Password for operators and administrators
Digital Processing and Storage	Image Compression	MPEG-4 Changeable bit streams/ Fixed bit streams
	Image format	Single picture: HD1 format (704 × 576 pixels)
	Video code rate	6.25-250Kbyte/s
	Video volume taken in H.D.	22.5M-900Mbyte/hour
	Resolution	Play backward 352 × 288 Pixels, real time monitoring 704 × 576 pixels, VGA output 704 × 576 pixels
	Video current standard	ISO14496
	Audio current standard	ISO11172
	Audio code rate	24Kbyte/s
	Audio volume taken in H.D.	86.4Mbyte/hour
	Internal Storage	One IDE hard disk, support H.D. with big volume of 200G or more
	Image quality	8 levels for adjusting: 1-8 levels
	Date read and write way	Full duplex

HDD Status			
HDD	Status	Capacity	Free_Space
1	Video Record	160G	128,125MB
2	Sleep	040G	039,000MB
3	None	000G	000,000MB
4	None	000G	000,000MB
Return			

will enter into inquiry machine information interface, this interface will display current software version and MAC address information.

Search Menu
All Record
Log
Record Status
<b>HDD Status</b>
Machine Info
Exit

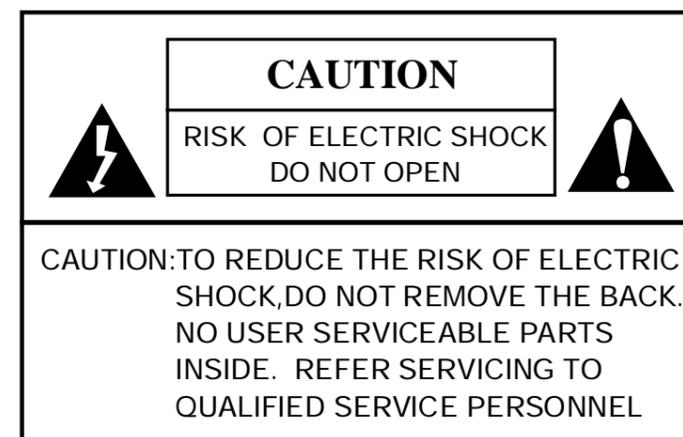
Version: 6214C-A-01.000
MAC Address: 000.111.111.111.110
Return

Software Version: display machine type, software type, panel information and version information;  
 MAC address: pressing [ENTER] key or inputting digit according to need can setup.

Note: only super user can hold changing MAC address authority;

#### 4.5 Exit

Moving cursor to this selection item, and pressing [ENTER] key to confirm will exit to inquiry menu, and exit to monitoring image.



#### Graphic Symbol Explanation



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



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

**Warning - To Prevent Fire Or Shock Hazard, Do Not Expose This Monitor To Rain Or Moisture.**

**This Product Must Be Earthed.**

**Product Specification Is Subject To Change Without Notice.**

## IMPORTANT SAFEGUARDS

### Caution

This equipment is to be opened by ONLY a qualified serviceperson. There are no user serviceable parts inside. Opening this equipment may expose to dangerous voltage and other risks. Incorrect re-assembly of this equipment may result in electric shock.

1. **Read Instructions:** All the safety and operating instructions should be read before the appliance is operated.
2. **Follow Instructions:** All operating and use instructions should be followed.
3. **Cleaning:** Unplug this monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. **Water and Moisture:** Do not use this monitor near water, for example, near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement, **swimming pool, or any other wet surface.**
5. **Accessories:** Do not place this monitor on an **uneven surface.** The monitor may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by supplier, or sold with the monitor.
6. **Ventilation:** Slots and openings in the cabinet are provided for ventilation **to** ensure reliable **operation** of the monitor and to protect it from overheating, and these openings should never be blocked by placing the monitor on a bed, sofa, rug, or other similar surfaces. This monitor should never be placed near or over a radiator or heat register. This monitor should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or supplier instructions have been adhered to.
7. **Object and Liquid Entry:** Never push objects of any kind into this monitor through openings as they may touch dangerous voltage points or short-out parts that would result in a fire or electric shock. Never spill liquid of any kind on the monitor.
8. **Repair(Servicing):** Do not attempt to repair this monitor yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer to qualified service personnel.
9. **Replacement Parts:** **Please consult the manufacturer for the replacement parts.**
10. **Safety Check:** Upon completion of any service or repair to this monitor, ask the service technician to perform safety checks to determine that the monitor is in proper operating condition.
11. **Retain Instructions:** The safety and operating instructions should be retained for future reference.

## 4.3 Video Record Status.

Search Menu  
 All Record  
 Log  
**Record Status**  
 HDD Status  
 Machine Info  
 Exit

Channel Status					
Mode	Status	Q	Frame	Alarm	Motion Detect
F_Pic	Idle	1	25	close	close

Return

- 1) Mode: Displays current image video recording mode, : Single mode, dual mode, quad image.
- 2) Status: video record/sleep two status
- 3) Image quality: display video record data image quality
- 4) Frame rate: display video record frame rate information
- 5) Alarm: setting alarm/cancel alarm two status, start alarm video record, will be setting alarm, instead, will be cancel alarm
- 6) Motion detection: turn on/ turn off.

## 4.4 Hard Disk Status

Moving cursor to [Hard Disk Status] item, and pressing [ENTER] key will enter into inquiry hard disk status interface, this interface will display current hard disk status, including hard disk's space and **free space.**

Search Menu  
 All Record  
 Log  
 Record Status  
**HDD Status**  
 Machine Info  
 Exit

## 4.2 Log

Moving cursor to [LOG] item, and pressing [ENTER] key will enter into inquiry log interface

```

Input date and type of the log
Type: All Event
Date : 2006 - - 04 - - 28 - - 23 - - 30
Start
Return
  
```

Format: includes all events recording mode, alarm mode, motion detection and operation mode;

According to the need select check time and click start.

1. All Events: Record all system operation and alarm record;
2. Alarm Events: [ENTER] key will enter into check alarm log interface. This interface will display the alarm situation that happened recently. Moving cursor to "up" and "down" place, and pressing [ENTER] key to turn over page. Alarm log will record exact alarm time in case of Video Loss/Place Setting/Password Error.

```

Log Search: All Event
04 - - 02 - - 15 - - 30,   Video Loss 1
04 - - 02 - - 15 - - 30,   Place Alarm
04 - - 02 - - 15 - - 30,   Video Loss 2
Return Page Up Page Down
  
```

Motion Detection: Temporarily no record, same as in alarm mode;

Operation Affair: moving cursor to [Operation Log] item, and pressing [ENTER] key into inquiry operation log interface. This interface display recently happen operation situation:

```

Log Search: Operation Affair
04 - - 02 - - 15 - - 30   Manual Video Record
04 - - 02 - - 15 - - 30   Restart
04 - - 02 - - 15 - - 31   Pan/Tilt Control
04 - - 02 - - 15 - - 35   Parameter Change
Return Page Up Page Down
  
```

Moving cursor to "up" and "down" place, and pressing [ENTER] key to turn over page, so can check its record page by page.

## Chapter 1 Survey of Products

### 1.1 Products Survey

The equipment is a kind of small channels digital monitoring products which is specially designed for security industry. It **adopts** the embedded processor and operating system and also **integrates** the most advanced technologies in IT field, such as using MPEG-4 video and audio compressing / decompressing, recording by hard disk with big volume, TCP/IP network and other technologies. The code solidity in FLASH has changed the traditional mode of Monitor with DVR. It **integrates** the Monitor with DVR instead, which not only **is** more convenient for users to operate but also makes the system more stable and convenient for maintenance.

### 1.2 Products Properties

- I Adopting the high-speed embedded micro-controller and also real time operating system, the system has a super-high stability, high durability, without crash phenomenon and also easy for maintenance.
- I **Easy Installation and use.**
- I Two levels of password protection from administrator and **user** guarantees the safety of the system.
- I The system **adopts** the OSD graphical interfaces, which is more convenient for users to **follow**.
- I The video **compression** adopts the pure hardware MPEG-4 Changeable stream or MPEG-4 fixed stream, supporting the HD1 and CIF resolution recording in each channel, the frame rate for recording is adjustable, with high sharpness but super-low hard disk space used.
- I **Adopts FAT32 format to store, and can take one unit IDE hard disc upto 300GB.**
- I **For channels video input, two channels video output, one channel VGA output; Two channels audio input, two channels audio output and one USB Port.**
- I Three channels **alarm** input, one channel linkage **alarm** output and one channel troubles **alarm** output.
- I **Real time monitoring and playback in single picture mode, dual mode or quad mode**
- I **The system supports turning on and off the machine automatically. In case of power outage, it resumes recording automatically once the power is restored. Alarm will go off automatically when no video signal is being received. This eliminates the need to monitor the system frequently.**

- I Manual Recording, time recording, alarm recording, motion detection recording saves the hard disc space ensuring effective usage of the hard drive space for longer periods of time.
- I Motion detection recording function, can setup more than 192 detecting areas independently.
- I The system supports pre-alarm recording and alarm prolong recording **guarantees**, which **guarantees** the **integrity** of alarm recording **equipment**.
- I Equipped With  $\times 2$ 、 $\times 4$ times fast forward/ fast backward play functions and  $\times 1/2$ 、 $\times 1/4$ 、 $\times 1/8$  times speed slow motion backward play, pause and frame play and others play control functions.
- I The system supports PAL/NTSC systems, **hence** this system can be used universally.
- I Brightness, contrast, Color and Tint can be setup **individually** for each channel.
- I **Perfect alarm log and operating log facilitates convenient analysis and searching.**
- I RJ-45 universal network telecom interface, network transmitting ways include ADSL、ISDN、LAN and CAN and so on;
- I **The included client software facilitates the long-distance monitoring and playback on net, and supports TCP/IP、UDP/IP and many other net transport protocols.**
- I **RS-485 interface equipped with the system can be used to control P/T/Z cameras with various decode protocols .**
- I VGA output has  $720 \times 480$ 、 $1280 \times 720$  and  $1920 \times 1080$  **Resolution** modes, **better quality picture could be attained by adopting progressive scanning.**
- I Supporting IDE hard disk material backup.
- I **Equipped with USB2.0 interface to the system, which could be used for backup to your PC or laptop directly from the DVR hard drive .**

## 4.1 All Record

Moving cursor to [All Record] item, and pressing [ENTER] key will enter into All Record interface:

Mode: moving cursor upon this selection item, and pressing [ENTER] key can select different video record format to inquiry (All video record/Timing video record/Alarm Video record)

Date Time: Move cursor to this selection , and press [ENTER] key or directly input the date and time, based on the recording date and time you want to playback; No press [START] to see the available recording for that duration. If there is **no** record found, it will say "No Record"

```

2006--04--02 All Record
01 02 03 04 05 06 07 08 09 10 11
12 13 14 15 16 17 18 19 20 21 22
UP DN 23 24 25 26 27 28 29 30 31
No Record
Return
    
```

When selected date has video record, it will display below interface

```

2006--04--02 All Record
01 02 03 04 05 06 07 08 09 10 11
12 13 14 15 16 17 18 19 20 21 22
UP DN 23 24 25 26 27 28 29 30 31
1 00000000 08:00 - 09:00 A 25
1 00000000 09:00 - 10:00 R 25
1 00000000 10:00 - 11:00 R 25
Return
    
```

You can also scroll through other dates during the month to view the recording. If the date is in yellow color it means that there is a recording for that particular day. Press [ENTER] to view the available recording for that day.

```

2006--04--02 All Record
01 02 03 04 05 06 07 08 09 10 11
12 13 14 15 16 17 18 19 20 21 22
UP DN 23 24 25 26 27 28 29 30 31
1 00000000 08:00 - 09:00 A 25
1 00000000 09:00 - 10:00 R 25
1 00000000 10:00 - 11:00 R 25
Return
    
```

CBR: Denotes fixed code flow's coding format, this coding format shows, image quality is invariable, but image quality can change according to moving object's scale inside, the larger the moving object occupied in image's scale, the worse the image quality

Message Sound Switch: When setting is turn on, hard disk error and password input error, machine buzzer will sound.

Language setting: Moving cursor to this item and pressing [ENTER] key can switch Chinese and English interface.

Peak segment setting: Moving cursor to this item and pressing [ENTER] key can enter into corresponding interface.

Packing time: Moving cursor upon this item and pressing [ENTER] key to adjust, can select 30, 45 and 60 minutes packing time.

USB 2.0 setting: Moving cursor upon this item and pressing [ENTER] key to confirm will turn on USB interface

Instruction: After turning on USE 2.0 setting you can connect to PC computer (PC computer only need USB 2.0 interface), and backup the files on your PC. Once you select USB2.0 function [Return], machine will restart.

### 3.3.9The "EXIT" key

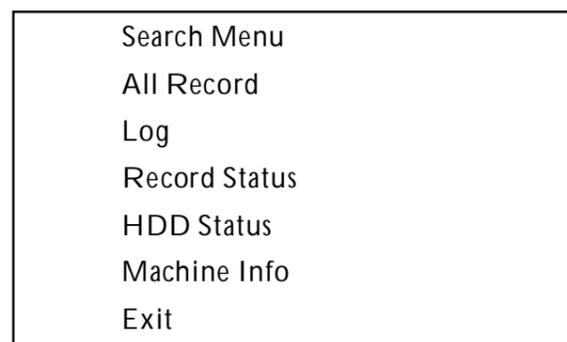
Move the mouse to the topic of "EXIT" and press enter to save settings and back to the setting menu and return the monitor TV screen.

## 3.4 Summary of other functions

### 3.4.1 Analog function

When the system is in the single screen mode, the user can adjust the picture quality

- Brightness: press the analog key on the remote control, the screen will show "Brightness" on the top right hand corner . Press "-" or "+" to adjust the brightness as desired.
- Saturation: Press the "Analog" key for second time and "Saturation" appears on the top right hand corner. Press "-" or "+" to adjust the saturation as desired.
- Contrast degree: Press the "Analog" key for third time and "Contrast" appears on the top right hand corner. Press "-" or "+" to adjust the contrast as desired.
- Hue: Press the "Analog" key for the fourth time and "Hue" appears on the top right hand corner. Press "-" or "+" to adjust the color as desired.
- After running system, by pressing [Check] key will enter into inquiry menu, screen will display main menu, pressing direction key to select wanted check item, and press [ENTER] key enter into this item.

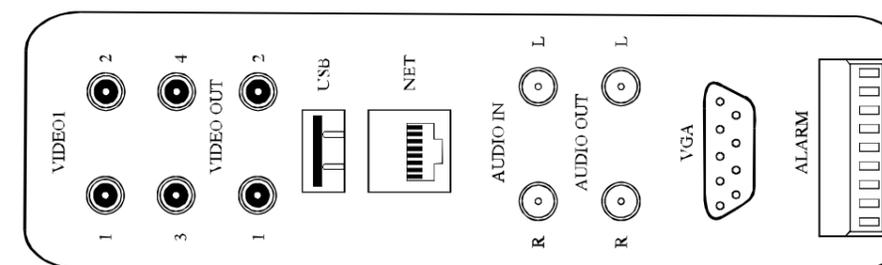


# Chapter 2 System Installation

## 2.1 Hard Drive Installation

Note: please set the hard disc to "Master" mode when connecting to the DVR.

## 2.2 Interfaces on Back Panel



VIDEO IN: 1~4 Video Input

VIDEO OUT: 1~2 Video Output

USB: One Channel USB terminal input

NET: One Channel NET terminal Input

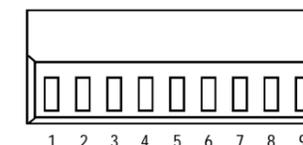
AUDIO IN: One Channel left/ One Channel right audio input

AUDIO OUT: One Channel left/ one Channel right audio output

VGA: One Channel VGA terminal input

ALARM

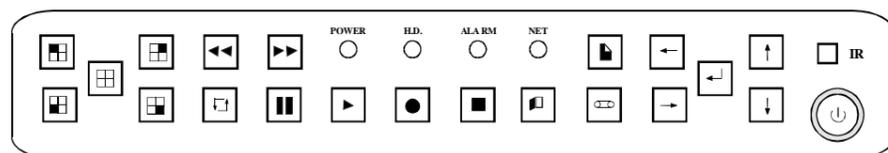
- ①、Alarm output 1
- ②、Alarm output 2
- ③、Ground wire
- ④、Alarm input 1
- ⑤、Alarm input 2
- ⑥、Alarm input 3
- ⑦、Ground wire
- ⑧、485B
- ⑨、485A



## Chapter 3 System Operating Manual

### 3.1 Instructions for front panel and remote control unit

#### 3.1.1 Front Panel



Buttons on front panel and their functions:

- ① Indicating light area
  - NET: Indicating light for network  
When network connection is ok, it displays green, and when data is transferring it flashes.
  - ALARM: Indicating light for alarm  
The alarm light will be on once the alarm is started ( no matter what kind of alarm it is for )
  - H.D. : Indicating light for Hard Disk  
The light turns on when Hard Disk reads and writes the data.
  - POWER : Indicating light for power  
The power is on if the light turns red;
- ② Buttons area
  - Menu operating buttons
    - ↑ : UP Directional button;
    - ↓ : Down Directional button;
    - ← : Left Directional button;
    - : Right Directional button
    - 【↵】 button: for confirmation,choosing the menu items, and press this button to enter into the selected sub- menu; Pressing this button can display the real time of the system when playing back the recording;
  - Functional Buttons Area
    - 【▢】 Button: Main Menu, used for setting each parameters of the system.
    - 【▶】 Button: Play the existing recording on the hard drive;
    - 【⏮】 Button: Checking the menu buttons, used for checking recorded information on the hard disc;
    - 【⏪】 Button: Exit button, exit from the current operating menu to last selected menu;
    - 【●】 Button: Recording button, four channels manual recording can be started at the same time when the screen is in built-in quad mode, dual views manual recording can be started when the screen is under two channels surveillance state; Single channel Manual recording can be started when the monitor is under single channel surveillance state
    - 【■】 Button: For stopping the recording button and the manual recording;
    - 【⏮】 Button: Fast Rewind button, at speed of ×2 and ×4 times;
    - 【▶▶】 Button: fast forward button, Play fast forward of the recorded picture at speed of ×2 and ×4 times;
    - 【⏮】 Button: Press this button continuously to see the picture frame by frame;
    - 【⏮】 Button: Used for switching between built-in quad, dual and single picture mode; in the following order :  
Channel 1→Channel 2 →Channel 3 →Channel 4 →Dual Views (Channel 1- Channel 2) →Dual Views (Channel 3- Channel 4) →Built-in quad →Channel1

#### 3.3.6 Net Parameter

Move the cursor to the net parameter and press enter to get into the system's net interface setting.

See picture below:

- a). IP address: Press enter or manually type numbers on the IP address line.
- b). Sub-net Mask: Moving cursor upon this selection item and pressing [ENTER] key or input number directly, set host IP address correctly according to host local LAN
- c). Default Gateway: setting according to IP address
- d). Bandwith: This feature can be used to set the speed of transfer of data over the network

#### 3.3.7 System Information (need screen shot)

Moving cursor over [System information] and pressing [ENTER] key enter into system information setting interface.

#### 3.3.8 Basic parameter

Basic Settings	
Record Settings:	Setup
Buiz Settings:	Close
Language Settings:	English
Fastigium Settings:	Open
Recordbag Settings:	30 minute
USB Settings:	Setup
Video Spot Settings:	05 Second

Moving cursor to [Basic parameter] item (bottom color of character change to white means being selected) and pressing [ENTER] key enter to this item selection setting interface:

After entering into sub-menu, move cursor up and down to scroll through the sub menu.

Video recording parameter setting: Moving cursor upon this item and pressing [ENTER] key takes you to the corresponding interface.

Image quality: Divided into "1-8" different parameters. Press [Enter] to change this parameter The smaller the digit, the better the image quality.

Frames per second: When system has been set to PAL format, it can divide into "25、12、06" three ranks, when system has been set to NTSC format, it can divide into "30、15、08、"three ranks.

Moving cursor upon this item and pressing [ENTER] key will change its parameter.

Format: Moving cursor upon this item and pressing [ENTER] key can switch system's video record coding format: VBR、CBR.

VBR: Denotes changeable code flow's coding format, this coding format shows, image quality is invariable, but data code flow's size can change according to moving object's scale inside, the larger the moving object occupied in image's scale, the larger the code flow.

### 3.3.5 Housing setting

Moving cursor upon [Pan/Tilt setting] and pressing [ENTER] key can enter into quad channel Pan/Tilt port setting interface

- A. Channel: Denotes system's channel number.
- B. Protocol: Denotes the communication protocol between system and decoder. Moving cursor to this selection item and pressing [ENTER] key can make selection among different protocol (Pe1co- D/P/09- 15/Dscp/FastDome/PIH1016- 1017/JECFastD/RM110/Neocam) Selected protocol must match to the protocol of decoder, only can it control front equipment correctly.
- C. Baud rate: Denotes communication speed between system and decoder. Moving cursor to this item selection and pressing [ENTER] key can make selection among different baud rate (1200/2400/4800/9600), selected baud rate must match decoder's baud rate, only can it control front equipment correctly.
- D. Pan/Tilt code: Moving cursor upon this selection item and pressing [ENTER] can make selection among different Pan/Tilt serial number (01-63), system's 01 code number match to decoder's first address code, that is address code "01"
- E. After **setting up** all item selection, move cursor to [RETURN] and press [ENTER] key will return to previous menu, and save Pan/Tilt parameter setting.

Attention: Pan/Tilt protocol, baud rate, Pan/Tilt serial number three items must be **in** accordance with outer Pan/Tilt (quick ball) setting parameter.

Pan /Tilt operation: After setting Pan/Tilt parameter correctly, press [F2] key **on** remote control under single monitoring state, the top left corner of screen will display "Pan/Tilt control" character, temporarily, we can operate this channel's Pan/Tilt by using press [F2] key **on** remote control and panel.

【▲】、【▼】Key: Lens up and down motion, display character: up and down;

【◀】、【▶】Key: Lens left and right motion, display character: Pan/Tilt left and right;

【Change times +】、【Change time -】Key: Adjust image far and near extent, display character: Change times + and change times -;

【Aperture +】、【Aperture -】Key: Adjust image bright and dark extent, display character: Aperture + and aperture -;

【Focus +】、【Focus -】Key: Adjust image clarity extent, display character: Focus + and focus -;

【Automatic】Key: signifies automatic control, display character: Automatic

【Transfer】Key: Pan/Tilt transfer control, display character: transfer 00, back key;

【Pre-set】Key: Pan/Tilt preset control, display character: preset 00, back key.

【Washer switch/Light】Key: Washer switch and light assistant switch control, display character: Washer switch;

Pressing [F2] and [Pan/Tilt] once more will exit Pan/Tilt operation, and return to single image monitoring state; Switch monitoring image and pressing [F2] key can enter into another channel Pan/Tilt operation.

Warning 1: When operating Pan/Tilt function, system can't startup manual video recording function.

Warning 2: When operating Pan/Tilt function, once system startup video record (timing or alarm startup), temporarily can't affect Pan/Tilt operation.

Troubleshooting: When Pan/Tilt doesn't operate normally, Please check RS-485 (see "Alarm Port lead line definition") and Pan/Tilt parameter

### 3.1.2 Remote Control Unit



#### Buttons **on** Remote Control Unit and their functions:

- ① Digital Buttons Area
  - 【0-9】Button: Digital buttons, used for using digit input or video switch, when under the built-in quad state, press 1、2、3、4 digit buttons mean to switch the picture output to the first, second, third and fourth channel video single picture;
  - 【+】、【-】Button: Adjusting **various** parameters;
- ② Menu Operating Buttons Area
  - ▲ : **UP Directional button**;
  - ▼ : **DOWN Directional button**;
  - ◀ : **LEFT Directional button**;
  - ▶ : **RIGHT Directional button**;
  - 【ENTER】button: for confirmation, choosing the menu items, and press this button to enter into the selected sub-menu; Pressing this button can display the real time of the system when playing back the recording;
- ③ Platform control function buttons
  - 【ZOOM+】、【ZOOM-】Button: Adjust the distance of the picture;
  - 【APERTURE+】、【APERTURE-】Button: Adjust the brightness of the picture;
  - 【FOCUS+】、【FOCUS-】Button: Adjust the sharpness of the picture;
  - 【AUTO】Button: Control automatically;
  - 【RECALL】Button: standby button in control of platform;
  - 【PRESET】Button: Preset control on platform, standby button;
  - 【SWITCH】Button: control on some assistant switch;
- ④ Play function buttons
  - 【PLAY】Button: Play the the recording on the hard drive;
  - 【SLOW】Button: Play the images slowly, at speed of  $\times 1/2$ 、 $\times 1/4$ 、 $\times 1/8$  times, or press 【play】 button to return to normal playing speed;
  - 【PAUSE/SETP】Button: **Press one time to Pause the picture ,and then press continuously, picture will be displayed frame by frame, press 【 Play 】 button to return to normal speed of playing.**
  - 【FWD】Button: Play fast forward of the playback picture, at the speed of  $\times 2$ 、 $\times 4$  times, press 【 Play】 Button to return to the normal speed of playing;
  - 【REV】Button: Play fast backward of the playback pictures, at speed of  $\times 2$ 、 $\times 4$  times, press 【 Play】 Button to return the normal speed of playing;

⑤ Other function buttons

- 【 POWER/ON 】 Button: for turning on and off the machine ( Standby and start ) ;
- 【 LOG IN/LOCK 】 Button: get the operating rights, to type in the password and lock operation;
- 【 PLAYBACK 】 Button: **For reviewing the recording, log, state of hard disc, information of software edition and so on;**
- 【 QUAD 】 Button: For switching pictures **between** built-in quad, dual views and single picture;  
Order of Display: Channel1→ Channel 2→ Channel 3→ Channel 4 → Dual views (Channel 1- Channel 2)→ Dual views (Channel3- Channel 4)→ Built-in quad → Channel 1
- 【 ANALOG 】 Button: display the brightness, contrast, colour and tint, adjusting its parameters together with the adjustment of 【 + 】 、 【 - 】 button ( This operation need to be **performed** only when under single picture **mode** and this channel should be under non-recording state ) ;
- 【 EXIT 】 Button: Exit button, exit from the operating menu to last selected menu directly.
- 【 CF 】 Button: Enter into the standby menu for recording material, copy the material in hard disk to the outward connected memory **device** ( hardware with CF card connector is needed )
- 【 LANGUAGE 】 Button: Enter into "language selection" menu directly to setup the language.
- 【 NET 】 Button: Standby button;
- 【 RECORD 】 Button: **Start the manual recording in single, dual or quad mode**
- 【 STOP 】 Button: Stop the manual recording ( operating way is the same with that for 【 recording 】 button ) ;
- 【 SETUP 】 Button: When login the system normally, press this function button to enter into the menu setting of the system;
- 【 F1 】 Button: For pick time play on the recorded pictures;
- 【 F2 】 Button: Press this button to enter into the control menu of platform when under the single channel picture.
  - Press left, right, up and down buttons can do **recording** adjustment to platform camera;
  - Press 【 Zoom+ 】 、 【 Zoom- 】 Button: Adjust the distance of the picture;
  - Press 【 Aperture+ 】 、 【 Aperture- 】 Button: Adjust the brightness of the picture;
  - Press 【 Focus+ 】 、 【 Focus- 】 Button: Adjust the sharpness of the picture;
  - Press 【 Assistant 】 Button: Control on some assistant switch;
  - Press 【 Auto 】 Button: Control automatically;
  - Press 【 Event 】 Button: standby button in control of platform;
  - Press 【 Preset 】 Button: Preset control on platform, standby button;

Press again the 【 F2 】 button or 【 Exit 】 button to exit the setting for the platform control menu;
- 【 F3 】 Button: Standby Button.
- 【 F4 】 Button: switch between the monitor and VGA output;  
Operating ways: Press 【 F4 】 button in remote control unit to switch between output of monitor and output of display when under monitoring. Its order is: output of monitor → VGA 1 → VGA 2 → VGA 3; There are three states for VGA output, which can be **adopted** for different VGA standard.

- e). Delay the alarm output: Under the alarm recording mode, the system is communicating the alarm output signal with the alarm output end point automatically after moving the testing signal has received the alarm signal from the I/O. Delay the alarm output means delaying the continuous time of the alarm's output signal.
- f). I/O alarm output: Two choices are open or close. When system has received the alarm signal from the I/O, it will alarm from the output end point. When system has not received the alarm signal from the I/O, it will not alarm from the output end point.
- g). Motion alarm output the same as the above.

If you do not do the setting for each channel, it means invalid channel and that channel can't record video, you can still see the image under monitoring if the channel has image signal But the system will not prompt the alarm message if the image signal of this TV screen is lost.

### 3.3.4 Work Setup

Record Setup		
Channel	Schedule	Area-Set
1	Setup	Setup
2	Setup	Setup
3	Setup	Setup
4	Setup	Setup
Return		

The content of the Work Set order includes scheduling recording for each channel and the setting up of area for each channel for motion detection.

The specific operation of each function is given below:

- A. Setting the recording time: Press Setup for each channel under "Schedule" to setup the day (Mon-Sun), Time of recording 1st Segment, recording mode(Time, Alarm or motion) Time of recording 2nd Segment, type of recording mode. There are 2 segments of recording to accommodate the change in date. For example, if you start recording at 11:30pm on Monday, the 1st set will be 11:30pm to 11:59pm and the second set will be 12:00am to 11:
- B. Survey area setting: The picture above is showing that the whole screen is composed of 192 small areas. The **blue color** represents the area that has not **been** selected; the **been purple** represents the area that has been selected; **blue color** the operating method is once getting into the setting interface; the purple small square will be flickering between two colors alternatively which are purple and **blue**.  
**If you press [Enter]** The small purple square will change its color to two colors which are purple and **blue** and it will be flickering alternatively.

### 3.3.2 CHANNEL SETUP

Channel setup setting includes channel name, screen display, clock insert, TV screen cover, etc

Channel Setup					
CH	Title	CH Name	Time InSert	Mask	CH View
1		Open	Down	Close	Open
2		Open	Down	Close	Open
3		Open	Down	Close	Open
4		Open	Down	Close	Open
Return					

- a). **Channel:** Enter the channel number. If it has a X symbol in front of the channel number code, it indicates invalid channel.

Note: For each channel, it means the channel can't record video. However, you can still see the channel image under monitoring if the channel has image signal. But, the system will not prompt the alarm message if the image signal of this TV screen has lost.

- b). **Title:** Name of the channel. Enter the title of the camera location. Move the cursor to this topic and press enter and enter the channel title. When you have finished, press enter.
- c). **Screen Display:** Two choices are switch on or switch off. If switch on is selected, it will show the channel title while monitoring. If selecting switch off, it will not show channel title while monitoring.
- d). **Time Insert:** There are three choices for users, up, down or close. Press Enter to make your selection. When option up is selected, the time will be displayed on top of the screen, when option Down is selected, the time will be displayed at the bottom of the screen. If the option Closed is selected, the time will not be displayed on the screen.
- e). **Mask:** Two choices for users are switch on or switch off. You can press enter for any changes. TV mask used for covering the part of channel which is not to be recorded.
- f). **Channel View:** Two choices for users are open or close. Open keeps the channel open for viewing and close blocks the image from viewing.

### 3.3.3 Alarm Setting

- a). **Terminal:** 1, 2, 3, 4 respectively represent 4 outer I/O alarm input ports.
- b). **Open:** Two choices are open or close. Open indicates the system has received the input alarm signals from the I/O end points. Close indicates the system has not received the input alarm signals.
- c). **inputting way:** Two choices are (close/short) closed circuit and open circuit. Users have the option to turn on /off alarm for each channel
- d). **Delay alarm recording:** Under the alarm recording condition, the system receives the alarm signal from I/O. The system recording video is according to the time length which the user has already set up. The system will stop recording video automatically when it has reached the end of its set time since it has not received the alarm signal from the new I/O.

## 3.2 System on/off

### 3.2.1 System Start

When supplying power to DVR normally, the system enters into stand-by state ( the indicating light of the power – red led is on permanently ) 。

When press the [ on/off ] button in the remote control unit, the system is started, pictures displayed in the screen are built-in quad images, the digit showed in each picture means its video input channel No. the real time will be displayed at the top center of the screen.

Note: If time recording has been setup in this machine(or at high peak period), and power is just connected during this period, then the machine will start and enter into multi-pictures state directly without needing to press [ on/off ] button again to start the machine.

If there is no display of video input channel No in the screen and the real time for the system, please press [ ENTER ] button on the remote control unit or panel, and the channel numbers will be displayed on the screen

If the hard disc has not been installed before turning on the machine, or the hard disc is not detected by the machine after turning it on, the monitor with hard disc will set off the alarm, Please log in the system to turn off the alarm.

### 3.2.2 System Login

Note: : Pre-delivery code for this equipment is: 000, the default password for administrator is 88888888, and it is 00000000 for user. Administrator has all the operating rights. In order to make sure the safe running of the system, administrators should change its code and default password of the machine immediately.

When the host machine is started, user can only operate the system when logged in. If there is no activity within 100 seconds after logging in, the system will enter into lock state!

When the machine is just started or under lock up state, press the [ Login/Lock ] Button on Remote Control Unit, the login interface in the screen will appear, type in the code of the machine ( Pre-delivery setup: "000" ), and then type in the password ( password for administrator or operator of this machine ) .

- (1) If correct user's password is typed in, the monitor will show " Password Correct" message on the screen, and then after [Return] for confirmation, users can operate each items within the permitted field(the default password for user is: 00000000 ) .
- (2) If correct administrator's password is typed in, the monitor will show " Password Correct " message on the screen, and then after [Return] for confirmation, administrator can perform all the operations in the machine ( The default password for administrator is: 88888888 ) 。

Note: There are two password management- one for administrator and another for user, different operating range will be permitted by inputting different password.

### 3.2.3 System On and Off

When the system is under monitoring state, please press twice of the [ on/off ] button in the remote control unit if you want to turn off the system, The system will change into standby state from running state when it is off; If you want to restart the system, please press the [ on/off ] button on the remote control.

If the system is under recording state, turn off or unplug power chord, and then turn on the power to make the machine enter into standby state, the machine will start automatically, the recorded files will redisplay its chapters.

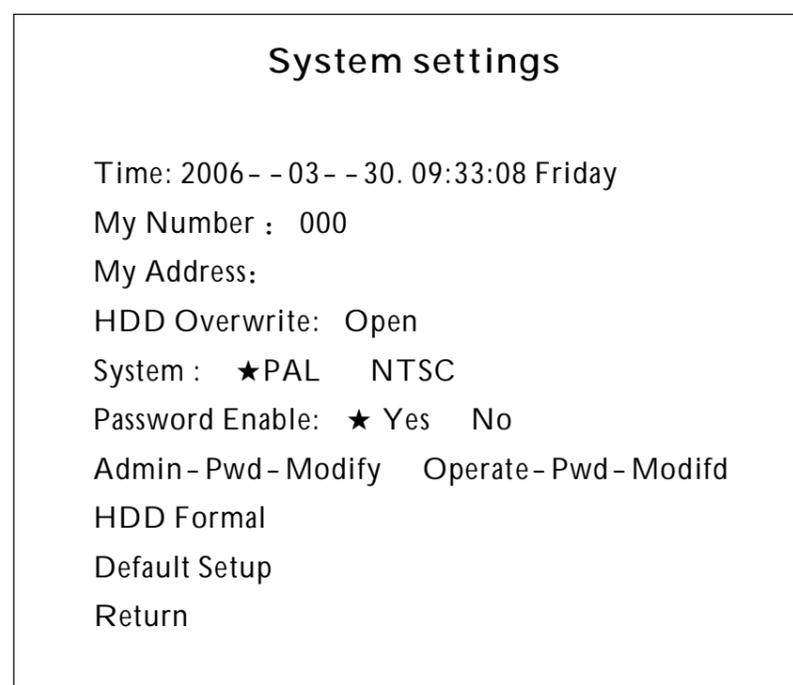
Note: The turn off operation can be also be done when machine is under recording and playing state.

## 3.3 Properties Setup of the system

When the system is running, press [ setup ] button to enter into the OSD main g menu managed by host machine, move the " ▲ 、 ▼ 、 ◀ 、 ▶ " directional buttons on the remote control unit to go to the desired menu, Press [ ENTER ] to enter into each menu, and will be explained by one the next section.

### 3.3.1 System Setup

Move the cursor to the position of [ System setup ] (the color of the characters turns to blue with while bottom), Press [ ENTER ] button to enter into its setting interface, After entering into the sub-menu, highlight the items with cursor keys to change the value.



More the Arrow key to each sub-menu and press enter for setting.

- a). Time: When you have adjusted the year, month and day, the time will appeared automatically. Move the cursor where you want to make the changes and press enter for adjusting or type in the numbers using the remote control.
- b). Machine's serial number: Scope of input number is from "000" to "999". Machine's serial number is already preset to "000" when the machine leaves the factory. You need to input this number when the system is running.
- c). Machines address: Enter manually the machine address here. Machine address could be the address of the place being monitored thru this system. Move the cursor to the "address" line and press enter to be able to enter the address and press enter again when finished. Use the remote control to enter the numbers and letters. The number keys could be used for letters similar to the keys on a standard telephone. For example "2" represents 2abc and likewise.  
 Note: The length input words should be 8 characters or 4 words.
- d). HDD overwrite: You have two options "Open" & "Close" When "Open" is selected, it will allow recording continuously even after the hard drive is full and video will be recording in FIFO (First-in-first-Out) format; When "Close" is selected, it will stop the recording function once the hard drive is full.
- e). Video System: The video system can be changed from NTSC to PAL and vice versa using the left and right arrow keys on the remote.
- f). Modify the administrator PIN code: Please press enter to get into the setting interface of the administrator pin code! You can press the number keys on the remote control to enter the new pin code. Please note that only the administrator has the authority to change the pin code.
- g). Operator pin code: Press enter to get into the setting interface of the controller's pin code. You can press the number key on the remote control to make any pin code corrections. Press the Enter key to save this setting.  
 Note: Please memorize your pin code and save it in a secure place to avoid it getting into the wrong hands.
- h). HDD format: Use this function to format the Hard drive.  
 Warning: All the data on the Hard drive will be lost.
- i). Default Setup: This function will reset the system to factory settings
- j). EXIT: This function takes you back to the Main Menu.