

The series DVR is designed specially for security and surveillance field which is an outstanding digital surveillance product. It introduces embedded LINUX operating system which is more stable. It introduces standard H.264mp video compressed format and G.711A audio compressed format which insures the high quality image and low error coding ratio. Strong network services greatly enhance the network data transmission capacity and remote control capabilities.

The First Part: Basic Operation

1 Basic Installation

1.1 Hard Disk Installation

For the first use, please install the hard disk.

Full Function series DVR support 2 Sata hard disks, and Simple Function series DVR support 1 Sata hard disk.

Note: DVR can run and monitor normally without hard disk, while it can't record and playback.

1.2 Mouse Connection

Full Function series DVR has 1 USB at back panel and 1 USB at front panel,the 2 USB could be used for mouse,Flash stick,3G&WIFI module,movable HDD and USB DVR-RW.

Simple Function series has two USB at back panel for mouse and flask stick

2 Turn on

Plug the power supply and turn on the power supply switch. Power supply indicator light shining indicates turning on the video recorder. After finishing the startup you will hear a beep, and the default setting of video output is multiple-window output mode.

Note: Restart the power after the abnormal power off, DVR will automatically recover the state before power off.

3 Turn off

There are two methods to turn off the DVR which are soft switch and hard switch. Entering [Main menu] and choosing [Logout] in the [turn off the system] option is called soft switch. Pressing the

power supply switch is called hard switch.

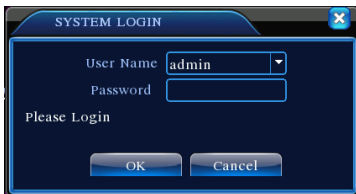
Note: The setting information must be saved before replacing the battery otherwise information will lose.

4 Login

When the DVR boots up user must login and the system provides the corresponding functions with the user purview. There are two user settings which are admin, and guest; and they have no passwords. “Admin” is the super user purview; “Guest” is the common user purview.

Default user : admin , no password.

Password protection: If the password is continuous wrong three times, the alarm will start. If the password is continuous



wrong five times, the account will be locked. (Through reboot or after half an hour, the account will be unlocked automatically).

Picture1 Login

For your system security, please modify your password after first login.

5 Preview

Login normally and choose the multi-menu preview status.

The system date, time and channel name are shown in each viewing window. The surveillance video and the alarm status are shown in each window.

1		Recording status	3		Video loss
---	--	------------------	---	--	------------



2		Motion detect	4		Camera lock
---	---	---------------	---	---	-------------

Table1 Preview icon

6 Recording Configuration

Set the recording parameters in the surveillance channel. You can enter [Main Menu]> [Record]> [Record Config] to set. The system's default set is 24 hours continuous recording.

Note: There is at least one read-write hard disk if the DVR records normally.



Picture2 Record Config

- 【Channel】 Choose the corresponding channel number to set the channel. Choose the “all” option to set the entire channels.
- 【Redundancy】 Choose the recording file and backup in two hard disks. The one is read-write disk, another is redundant disk.
- 【Length】 Set the time length of each video file. 60 minutes is default length.
- 【Prerecord】 Record 1-30 seconds before the action. (File length is decided by the code stream)
- 【Record Mode】
 - Schedule:** Record according to Time table section
 - Manual:** Keep recording continuously
 - Stop:** stop recording

Time Table:

【Period】 Set the time section of common recording, The recording will start only in the set range. Please make sure that the time period is complete.

For example:

Period 1 : 00:00 – 07:00

Period 2 : 07:00 – 18:30

Period 3 : 18:30 – 24:00

【Recording Type】 Set recording type: regular, detection or alarm.

Regular: Keep recording. Perform the regular recording in the set time section. The video file type is “R”.

Detect: Trigger the “motion detect”, “camera mask” or “video loss” signal. When above alarm is set as opening recording, the “detection recording” state is on. The video file type is “M”. (Please read Section 7)

Alarm: Trigger the external alarm signal in the set time section. When above alarm is set as opening recording, the “detection recording” state is on. The video file type is “A”. (Please read Section 7)

7 Motion detect & Alarm Setup



Picture 6 Motion Detection

Motion detection setup. Set DVR equipment making it alarm, linkage record and make the PTZ turn to preset position when there is a moving object in designated areas during Monday to Friday.

Step1. Choose **【Main Menu】 > 【Alarm】 > 【Motion Detect】**, then enter the setup interface;

Step2. Choose one channel and adjust sensitivity level, then set the time period of alarm surveillance. **Region**: Set the detect area. Default value is detecting whole screen. Enable the box means no detection on that area. Then right click to choose "up window".

Step3. When it trigger movement, the DVR will follow the setting below

1. Alarm output (send signal to external Alarm device)
2. Recording (When the Channel number you choose on top trigger movement, Select the camera you want to record the footage.)
3. tour
4. PTZ activation
5. Snapshot (some model doesn't have this function)
6. show message(it will shows alert on the screen)
7. sending email(refer to Email Manual)
8. buzzer

Step4. Set other channels alarm parameter following step 2 and step 3.












Note: video block, video loss and alarm input's setup method are similar with motion detection.

8 Video Playback & Backup

There are two methods for you to play the video files in the hard disk.

1. In the desktop shortcut menu.
2. Main Menu>Record>Playback.

Note: The hard disk that saves the video files must be set as read-write or read-only state.

Button	Function	Button	Function
	Play/Pause		Backward
	Stop		Slow Play
	Previous Frame		Fast Play
	Next Frame		Previous File
	Repeat Playback		Next File
	Full Screen		



Picture4 Video Playback

- | | | |
|----------------|---------------------|---------------------|
| 1. File option | 2. File information | 3. File searching |
| 4. File Backup | 5. Operation hint | 6. Playback control |

【File option】 Choose the file to playback/backup.

【File information】 Start time ,end time and size.

Note: The storage must be large enough before the file backup.

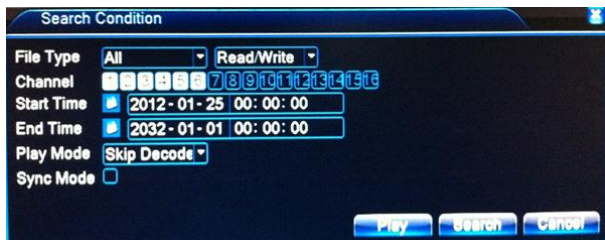
【File searching】 Search the file according to the searching parameter.

【File Backup】 Backup files from HDD

【operation hint】 Display the function of the cursor place.

【playback control】 Refer to the following sheet for more information.

Click the 【File searching】 Key to the Search Condition



【File Type】 : You can search video by Regular, Motion or Alarm

【Channel】 : Choose the Channel which you want to play back

【Sync Mode】 : if you enable it, all the Channel will play simultaneously.

After you click search, all the video in between start time and end time will show in the 【File option】 .

Backup: Select the file you want to backup under 【File option】 . Click 【File Backup】button. You can back up the Video file to USB flash drive.

Playback H.264 video in your computer:

In the CD, It comes with the program
Play_Eng_V1.2.0.02.R.20110601.exe

You can install the program above in your computer and playback the file which you backup in your USB flash drive.

9 Encode & Video Streaming

DVR achieves the functions such as high quality playback and remote monitoring by coding parameter config. Depends on the model, the maximum resolution and Frame Rate can be varies.



Picture 10 Encode setup

9.1 Encode setup for every channel

Note: Only part of DVR mode support resolution switch.

Step1. Local operation through **【Main Menu】>【System】>【Encode】** (remote setup click right mouse and choose “config” in **【System】>【Encode】**).

Step2. Choose channel 1, set the resolution as D1 (25fps, 1536Kb/s)

Step3. Choose channel 2, set the resolution as CIF (25fps, 512Kb/s). Click right mouse or choose “Advanced” then click “Copy” button.

Step4. Choose channel 3, click the right button or choose the local “Advanced”, then choose “Stick”. Channel 4’s operation is the same with channel 3.

Step5. Click “save”, then exit.

Note: standard parameter between resolution and Kb/s.

Resolution	Kb/S
D1	512~2560
HD1	384~2048kbps
CIF	64~1024kbps
QCIF	64~512kbps

9.2 Extra Stream Setup : (cell phone monitoring streaming)

Extra stream is used mobile monitor area.

Step1. Enable extra stream, Enable Video/Audio at the bottom

Step2. Set frame rate and bit rates, Operation way is the same as main stream.

10 PTZ Control

RS485 (+) = RS485(A)

RS485 (-) = RS485 (B)

PTZ Setup:

Step 1: Please check your PTZ camera(Please check the PTZ camera user manual)

1. Protocol : Pelco D, Pelco P or other
2. Camera ID or address number
3. Baudrate : 2400/4800/9600/etc

Step 2: Set basic parameter such as channel and protocol.

【Main Menu】 > 【System】 > 【PTZ Config】

Step 3: Change the channel to the one which you connected the PTZ camera. Then, change the Protocol, Camera ID and Baudrate which match the PTZ camera setting.

***Remark: if you have more than one PTZ camera connected to the DVR, all of them must have different camera ID (you need to change the setting of the PTZ camera)

PTZ Control:

Step 1: right-click the mouse, choose the “PTZ control”. It will pop up PTZ control screen (Picture 11)



(Picture 11)

PTZ Preset (Point) and Tour (Route): **Remark: your PTZ camera can support this Function

Preset Point:

Step 1: Set Preset Point. Ref. to Picture 11, Use the arrow and zoom+/- to change to right position and then click "Set"

Step 2: (Refer to Picture 12) Change the number in the "Preset" for different position. Click Set and it will go back to Picture 11. After you set more than 2 preset points, you can set Tour and the PTZ camera will follow the setting to rotate.



(Picture 12)

Tour (Route): In picture 11, Click Set. Then, click Tour Refer to Picture 13.



(Picture 13)

Step 1:



The Second Part: Remote Control

1 Network Connection

Before web operation, you need to connect the equipment with internet.

Step1. Connect the equipment with the internet correctly.

Step2. Set LAN following to the ninth term Network Setup in reference manuals first part.

Step3. When LAN is connected, it needs to set up port mapping for or public network access.

Step4. DDNS Application. You can apply for DDNS in the <http://www.3322.org/> and <http://www.oray.com/>

Step5. DDNS Setup. Make sure to fill the right info in the Main Menu->System->NetService->DDNS

Note: The device must be in the same network with PC, if cannot connect, please check the device IP if it works fine.

2. Remote Monitoring

After connecting the network, two kinds of methods can be used for remote monitoring which are client software and common browser. Client software (CMS) is professional software used in multi-equipments monitoring, which is safe, convenient and stable. It is the better one that we advise customers use it. And the browser comes with system such as IE browser.

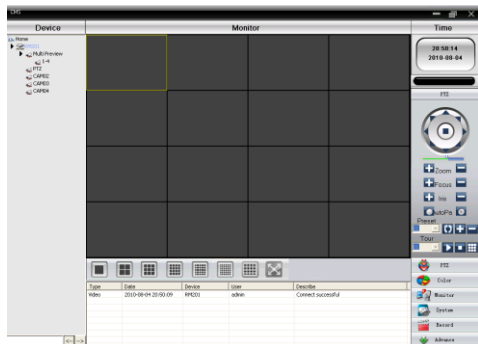
2.1 Client software

CMS software is used in a computer, and manipulates several DVR at the same time.

Step1. Please take CD out of the accessory box, then copy CMS installed software in it.

Step2. After installing this software at the local PC, then open the operation system as in picture 6, Enter the add device interface through **【System】 > 【Device Manager】 > 【Add area/device】**, and enter DVR information which is needed manipulating following the prompts, in that way, you can manipulate any specified equipment. And the method is the same with web manipulation's.

Step3. You can add several DVR more to do monitor operation if you repeat this operation.



Picture 7 CMS Interface

2.2 WEB

After the network connecting, using the browser comes with computer login DVR to do remote monitoring.

Step1. install the plug. Open the disk, then get activex_v1.1.0.32.exe and install.

Step2. Connect the equipment. Open web browser, then enter IP address on the address bar of the equipment. For example, the IP address of the equipment is 10.6.0.114, and then you should enter http://10.6.0.114 on the address bar to connect.

Pop up as follows interface after connecting successfully.

Note: when first login, see below picture



Picture 8 Web Login Interface

Step3. Login. Enter user's name and password, the default Administrator User ID is admin, and the password is admin. The user should change the administrator's password timely after logging in. (If choose "Local Area Network", it's Main streams, if "wide Area Network", it's Sub streams.)

You will see as follows interface after logging in.



Picture 9 WEB operation interface

3. Basic Web Operation

Do web operation in picture 8 web operation interface

1) Screen Split

Choose image preview mode;

2) Playback

Enter playback mode, which supports multi-channel playing back simultaneously.

3) Log

Display log information;

4) Local Config

Alarm and System setting

5) Channel operation

Open the videos. Left click and choose a window in the left, and choose the corresponding channel in the right, then double click the video. Open the second channel's video, choose the left window, then select the corresponding channel in the right, after then, double click the video. Opening other channels is the same way. If you have chosen the window of opened video, then open other channels in the right, the system will close all the channels and open new channel. Customers can adjust image mode upon opened video channels.

Close the channel. Rightclick mouse at the channels which are needed to close. Or choose to close all the windows to close opened video channels.

5 Flexible File Storage and Backup

DVR introduces several unique storage and backup techniques to achieve multiple modes storage and backup.

Real-time storage

Redundant storage. DVR introduces **RAD 1** storage technique to achieve two hard disks storing simultaneously and mutual

backup.

USB HDD and movable hard disk. DVR introduces the storage technique, supporting video files which are real-time written in storage devices.

DVD-RW. DVR introduces the newest real-time storage technique, supporting video file which are burnt real-time to CD.

Real-time remote storage. DVR supports video files real-time storing to computer devices(Disk C/D/E/F) at the remote client.

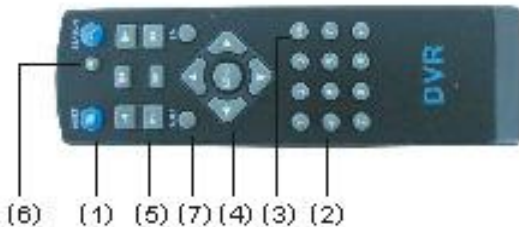
File download

Using U disk and movable hard disk download at local device, DVR supports the chosen file are high-speed backup to the storage devices.

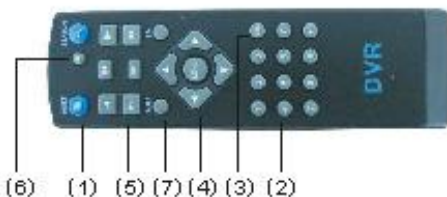
DVD-RW. DVR supports the chosen video file are burnt and stored as CD.

Network high-speed download. DVR supports high-speed down loading the chosen file at remote client.

Appendix 1. Remote controller operation



Serial number	Name	Function
1	Multi-channels button	Multi-channels preview
2	Number button	Password input/number input/ channel switch
3	【Esc】	Back to up window
4	Direction button	Direction and OK button



Appendix 2. Mouse operation

***Take right hand as an example**

Operation	Function
Double left click	Double click one item in the file list to playback the video Double click the playback video to zoom in or out the screen
	Double click the channel to make it full screen display in preview double click again to resume the multi-channel display

Left click	Choose according option in the menu
Right click	Pop desktop shortcut menu in preview state
	Current shortcut menu in the menu
Wheel button	Add or subtract number value in the number setting
	Switch the items in the combo box
	Page up or down in the list
Move mouse	Choose the widget or move the item in the widget
Drag mouse	Set the motion detect area
	Set the cover area

PRODUCT WARRANTY CARD

All the products sold are covered by 12months warranty from the date of invoice.

Warranty instructions:

1. Please contact us when the product is caused by its own fault within 1year warranty.

2. Please mail us your written warranty card as soon as possible after purchasing our products so that we can repair or replace this product to its original operation condition for free. Or the company will not deal with it.

3. Please write the truth information on the warranty card.

4. Paid for repairing as follows:

A: Equipment failure caused by human operation

B: Equipment failure caused by not conforming to the using environment

C: No warranty card

D: Warranty expired

Warranty card information:

Product model_____Product serial number_____

Purchasing time_____

User name_____Contact person_____

Telephone_____

Distributor Name_____Contact person_____

Telephone _____

Note: Please keep the warranty card for the better service.