

4 CH AHD 720P DVR

Model No QV - 3161



USER'S MANUAL

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SAFETY INSTRUCTION

Please carefully read the following safety instruction so as to avoid personal injuries and prevent the equipment and other connection devices from being damaged.

1. Power sources (note: please use the power supply attached or specified by the manufacturer)

Never operate the equipment by using unspecified power supply.

2. Never push objects of any kind through openings of DVR

Never push objects of any kind through openings of DVR so as to avoid electric shock or other accidents.

3. Do not put the equipment in the dusty field

Do not put the equipment in the dusty field.

4. Do not place the equipment under rain or humid environment

Do not place the equipment under humid environment like basement. If the equipment is accidentally in contact with water, please unplug the power cable and immediately contact your local dealer.

5. Keep the surface of the equipment clean and dry

Use soft damp cloth to clean the outer case of DVR (do not use liquid aerosol cleaners) 6. Do not operate if any problems are found

If there are any strange smell or sound from DVR, unplug the power cable and contact the authorized dealer or service center.

7. Do not try to remove the upper cover

Warning: Do not remove the cap of DVR so as to avoid electric shock.

8. Handle with care

If DVR does not work normally because of hitting on the hard object, please contact the authorized dealer for repair or replacement.

9. Use standard lithium battery (Note: Use the batteries attached or specified by the manufacturer)

After cutting off the power supply, if the system clock cannot continue to work, please replace the standard 3V lithium battery on the main board.

Warning: Turn off DVR before replacing the batteries, or you may be suffered from serious electric shock. Please properly dispose of the used batteries.

10. Put the equipment in a place with good ventilation

The DVR system includes HDD, which produces large amount of heat during operation. As a result, do not block the ventilation openings (on the top, bottom, both sides and the reverse side) for cooling the system during operation. Install or put the equipment in the place with good ventilation.

11. The attached power adapter can only be used for 1 set of DVR. Do not connect more equipment, or DVR may be restarted repeatedly because of insufficient power 12. Prevent the equipment from water dropping or splashing. Do not place objects containing water, such as flower vase, on the equipment

Chapter 1 Functional Descriptions and Features

Brief Description
Support output by monitor, VGA and HDMI, support real-time monitoring by
web application manager and mobile phone, and support electronic amplifier,
multi-screen sequence and PIP display.
Support video compression standard of H.264. The video quality, resolution of
each channel and video frame rate are adjustable. Support many recording
modes, such as start-up recording, timing recording, manual recording, alarm
recording, motion detection recording, remote recording, etc.
Support high capacity HDD with SATA port. The records can be stored
immediately in HDD.
Support single-channel or multi-channel search and playback by DVR or
network.
Backup records from DVR to U flash disk, mobile HDD and disk burner; or from
network to HDD.
Support alarm management of HDD and video input and the signal input from
external alarm apparatus.
Support authorized appagaing of remote alight to appure the system appurity
Support authorized accessing of remote client to ensure the system security.
Support USB mouse operation to set system parameters conveniently and
efficiently.
Support PTZ decoder communicated through RS485. It can expand two kinds
of decoding protocol to realize PTZ and dome camera control. Support PTZ
preset auto cruise function.

Table 1-1

Features:

- H.264 video compression format, support 960H display resolution;
- G.711 audio compression format;
- Windows style graphic user interface and embedded real-time Linux 2.6 operation system;
- Warm menu prompt;

•Full real-time six functions (preview, recording, playback, backup, network monitoring, and mobile phone monitoring);

- Support dual-stream network transmission;
- Support smart phone video monitoring;
- Support electronic amplifying and channel sequence display;

•Video packaging time is adjustable;

- multiple alarm modes;
- USB2.0 port, support backup, burning, software upgrading, mouse operation, etc;
- Support infra-red remote control;
- Support multi-language;
- Support automatic system maintenance;

Chapter 2 Overview of DVR

2.1 Front Panel



SN	Key or indicator	Identification	Functions
1	Power indicator	PWR	If the "Green" indicator is on, DVR is getting power normally.
2	HDD indicator	HDD	If the "Red" indicator flashes, the hard drive is being read or written to.
3	USB		USB port

2.2 Rear Panel

5

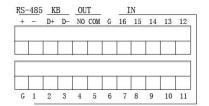
VGA port

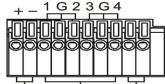
	CAUTION IN A CONTRACT OF CONTR	7 7 1 1 1 1 1 1 1 1 1 1 1 1 1
SN	Physical Interface	Connection
1	Audio output	Audio signal output, RCA port
2	Video input	Connect with CH1-4 (analog) video input device, standard BNC port
3	Audio input	Connect with CH1-4 audio input signals, RCA port
4	HDMI Port	Connect to HDMI monitor

6	USB port	Connect with U flash disk, disk burner, and other USB storage devices
7	LAN: Network port	Connect with LAN, Ethernet and RJ45 port.
8	RS-485/Sensor/Alarm	RS485/Sensor/Alarm port. Connect by referring to the interface definition below
9	Power port	Connect with the power supply DC12V 3A, attached with the machine

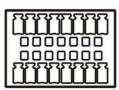
Connect with VGA display devices, such as PC monitor

The following diagrams shows the interface definition of sensor input / alarm output /RS485: $G = \frac{RS485}{1 + C} \frac{KB}{D + D} - \frac{ALARM}{NO COM G}$

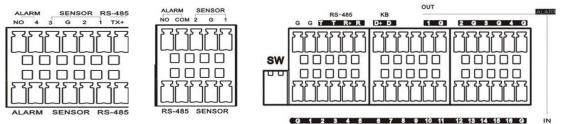




RS485 SENSOR ALARM



S1 S2 S3 S4 S5 S6 S7 S8



Alarm input: Check your purchased alarm device and connect a G (GND) foot to the port marked with "-" and connect the alarm channel to the port marked with "+".

Alarm output: Two ports marked with OUT.

PTZ port: Check your purchased PTZ and connect to the two ports (+ -) marked with RS 485.

2.3 Remote Controller (For reference only, goods in kind prevail)



Chapter 3 DVR Connection

3.1 HDD Installation

Caution: Please do not take out hard drive when DVR is running! HDD Installation:

(1) Cut power firstly, and then remove screws on both sides and rear panel and open DVR upper cover.(2) Connect HDD data line and power line to the main board. Install the HDD to fix it on the bracket and then connect the HDD power line and data line.

(3) Put the upper cover back carefully

Note: If user requires higher performance HDD, it is strongly recommended to use special hard drive for security and protection.

3.2 IP Camera and Monitor Connection

DVR video output signals are transmitted to VGA monitor or HDMI monitor by VGA or HDMI cable and DVR video can be monitored (Refer to section 1.2 Rear Panel). Refer to Chapter 6 System Connection Diagram.

3.3 Power Supply Connection

Please use attached power adapter to connect DVR. Before power on, make sure the cables on the audio and video I/O ports and network port are well connected. For audio ports, please use microphone and other audio devices together with BNC connecting line to input or output audio signals.

Chapter 4 DVR Boot up

4.1 System Initialization

After connecting the power cable of DVR to wall outlet and pressing the power button, you will enter into the DVR system initializing screen shown as Picture 4-1.



Note: The illustration in the user manual may not be the same as the menu interface in your monitor. All the illustrations are only for users' reference.

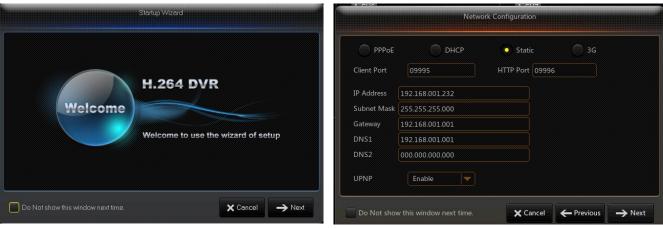


4.2 Startup Wizzard

After DVR startup is completed, the startup wizard will be displayed. If you do not want to make any setting, you may click "Don't show this window next time" to cancel, as shown in Picture 4-2.

Wizard setting menu includes: Homepage, Network setup, Record Schedule and HDD.

1. Homepage and network setup. In network setup page, user may set the network environment of DVR, as shown in Picture 4-3



Picture 4-2



2. Record Schedule (Picture 4-4). It can set recording time and scheduled recording of DVR.

С	hanne	CH1			1 0	Normal F	Record	🔿 Mo	tion Red	ord 🔿	Alarm	Record
	0 	2	4	6	8 1 1	10	12 	14 	16 	18 	20 	22]
M												
W												
T												
F												
	Сору	, CI	H1		Го	All			Сору			



3. HDD Management (Picture 4-5). It supports HDD format and overwrite type.

No	State	Free/Total	Free Time	Select
	ок	1851G/1863G	43Hour	
	ок	923G/931G	21Hour	
erwrite	Auto	Format HDD		
		Tornaction		

Picture 4-5



сн	05;/06/2015 09:04 CH2	921 СН3	CH4
CHS	СН6	CH7	СНВ
СН9	CHID	СНП	CH12
CH13	CH14	CH15	CHIE

Picture 4-6

Note: When internal HDD is not connected to DVR, the character "H" will appear on the lower part of the main interface and accompany buzzer alarm. If you want to disable the buzzer alarm, please enter into [Event->Alarm] to disable HDD loss alarm, HDD space insufficiency alarm and set alarm output to "off".

Chapter 5 DVR Menu

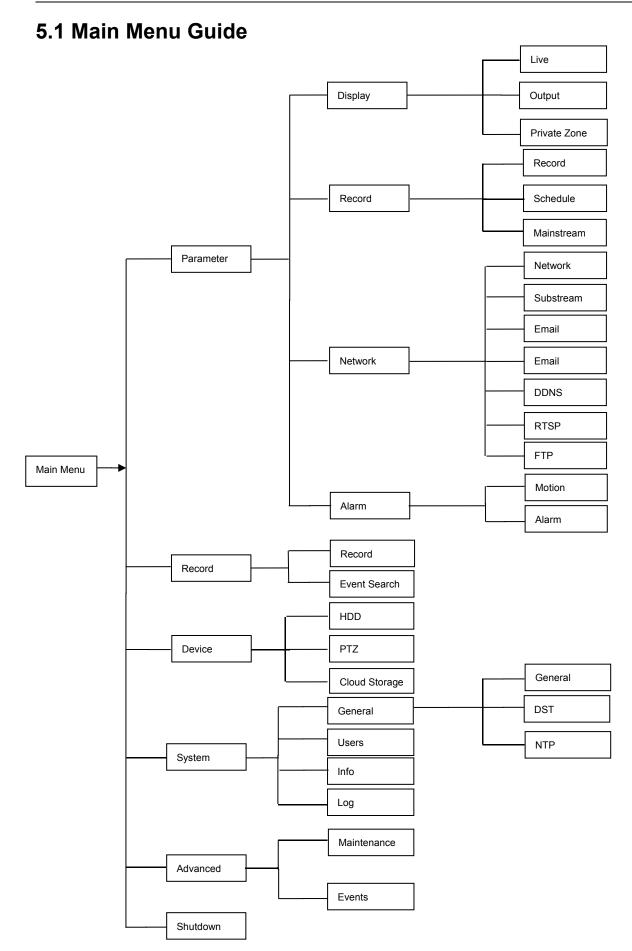
Popup Menu

After finishing system initialization, click right key of mouse on preview interface or slide the mouse to the bottom of screen to enter into Pop-up Menu. Now you could perform parameter setting and operate on Main Menu, Multi-screen, Auto Cruise, Record Search, Sequence, Volume setting and Brightness setting, shown as Picture 5-1.

The options in the pop-up menu may be varied slightly according to different parameter settings and application environment. The options in the menu will be explained in detail in the following chapters.

CH1	05/06/2015 09:10 CH2	CH3	CH4
CH5	CH6	CH7	CH8
СН9	CH10	СН11	CH12
CH13	CH14	CH15	СН16
		+00	

Picture 5-1



5.2 Main Menu

~	Q		2	٨
Parameter				
💻 Display				
Record				
暑 Network				
Alarm		Disable		
		Enable		
		Enable		
			Default Sav	ve Cancel

Picture 5-2

On LIVE mode, click the mouse button, or [Menu] button on the remote controller, or

click [

main menu screen, as shown in Picture 5-2.

If system interface is locked, refer to section 4.3 to unlock by inputting password.

In Main Menu mode, you can make settings for Parameter, Record Search, Device, System, Advanced and Shutdown.

5.2.1 Parameter

1. Live

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Display" \rightarrow "Live" to enter into the interface shown as Picture 5-3.

00 0	I	2	ħ	
Parameter				Shutdown
💻 Display				
Live				
Output				
Privacy Zone		Setup Disable		
🚯 Record		Enable		
봅 Network		Enable		
🛕 Alarm				
				>
			Default Sav	/e Cancel

Picture 5-3



Picture 5-4

- Channel: Select the channel in the drop-down list.
- **Channel Name:** Channel name, support up to 8 characters or 4 Chinese characters.
- **Position:** Set the position for the channel display
- **Color:** Click "Setup" to enter into the color setting page (Picture 5-4)
- **Image hiding:** Enable or disable the channel real-time monitoring
- Show Time: Enable or disable the system time display in the live interface.
- Copy: Copy the parameters in the channel to any other channel or all channels.
- Record Time: Enable or disable displaying system time in recording.
- Copy: Copy the setting parameter of a channel to another channel.

Adjust the brightness, hue, contrast and saturation of the image in selected channel in "Live" interface.

Note: To modify the parameter value in sub-menu and make it effective, click "**Save**" after modification and a dialog box with message "parameters have been successfully saved" will pop up. Click "OK" in the interface and click "**Exit**" to exit the menu. If you want to cancel the modification, click "Cancel" to exit.

2. Output

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Display" \rightarrow "Output" to enter into the interface shown as Picture 5-5.

\$	I	2		2		٩
Parameter						
💻 Display						
Output						
Record		1024x768				
Retwork			36			
🕰 Alarm						
				Default	Save	Cancel

Video Output: Live Output

- > Sequence Mode: Set sequence mode
- SEQ Time: Sequence time is set 5 seconds by default. User may set it as required
- VGA/HDMI Resolution: For VGA output or HDMI output, the optional resolution include 800×600, 1024×768, 1280×1024, 1440× 900, 1280×720, 1920×1080
- Transparency: Adjust menu transparency in the range of 0--128.

Picture 5-5

3. Private Zone

4. Record

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Display" \rightarrow "Private Zone" to enter into the interface shown as in Picture 5-6.

Privacy Zone is for setting some invisible parts in the selected channel, as shown in Picture 5-6 and Picture 5-7.

- 1. Select the number of the zone to be set (maximum 4 zones can be set for single channel)
- 2. Click "Setup" to adjust the position of the zone.
- 3. After finish setting, right click the mouse to return to the "Privacy Zone" page.
- 4. Click "Save" to save the setting.







Picture 5-7

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Record" \rightarrow "Record" to enter into the interface shown as Picture 5-8.

\$	I	4	5	P		٧
Parameter						Shutdown
💻 Display						
Record		Enable				
Record		Enable				
Record Schedule						
Mainstream						
Network						
Alorm						
				Default	Save	Cancel

Channel: Set the desired channel in the drop-down menu

- > **Record Switch:** Enable/disable record
- Pre Record: Enable to pre-record motion detection or I/O trigger record.

Picture 5-8

Select the channel and the date to be set.

The record schedule of the current

channel can be copied to any other channel or

1. In the Record menu and Record Search menu, No Color stands for no record;

2. "Green" stands for normal record and "yellow" stands for motion record

3. "Red" stands for alarm record,

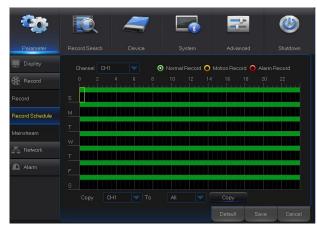
One week's schedule can be set.

5. Record Schedule

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Record" \rightarrow "Record Schedule" to enter into the Record Schedule interface to make record schedule for DVR, as shown in Picture 5-9.

all channels.

Note:



Picture 5-9

6. Mainstream

Go to "Menu" \rightarrow "Parameter" \rightarrow "Record" \rightarrow "Mainstream" to enter into the menu interface, as shown in Picture 5-10.

	Record Search				tvanced	
Display						
				Bitrate		
Record		WCIF				i
tecord Schedule		WCIF				
Record Schedule		WCIF				
lainstream		WCIF		224		
L Network		WCIF	25	224		
		WCIF				
D Alarm		WCIF				
	<u>сно</u>		25	994		

Picture 5-10

"Main Menu"→ "Record" → "Mainstream"

- Mode: Support 960H and D1. Select a resolution, save and exit main menu. Then the system will automatically restart to take effect.
- Resolution (960H): Support three kinds of picture quality: WD1, WHD1, WCIF.
- Resolution (D1): Support three kinds of picture quality: D1, HD1, CIF.
- Note: In AHD series, the supported record resolution includes 960H/720P/1080P; In TVI series, the supported record resolution includes 720P/1080P.
- FPS: PAL: 1--25f/s; NTSC: 1--30f/s.
- Bitrate: Bitrate for local storage. User may select in the drop down list.
- Audio: Check the box to record channel audio during recording and there will be audio output during playing record. Un-check the box to disable recording audio and there will be no audio output during playing the record

7. Network

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Network" \rightarrow "Network" to enter the interface shown as Picture 5-11.

Select a kind of network connection (PPPOE, DHCP, Static) and set Port, and user may remotely control the monitoring, recording, playback or backup of DVR through network

00	I	7		٩
Parameter				
💻 Display				
Record		09000	00080	
Network				
Network				
 Switch 				
 Switch 				
Email				
Alarm				
		Disable		
			Default Sav	/e Cancel

Picture 5-11

Take DHCP as an example. In this mode, the router automatically assigns IP address for DVR. After restarting DVR or DHCP server, the IP address obtained by DVR may be different. As a result, user shall check IP address and port number for each remote access of DVR. The operation procedure is as follows:

- 1. Select DHCP, click Save and refresh DVR. Input Client Port and HTTP Port (the two values must not be the same).
- 2. Set obtained IP address of DVR and the mapping port. Refer to section 4.2.4.2.

 Remotely visit DVR by IP address: http://Public network IP: Web port number (such as 00080) http:// Intranet IP: Web port number (such as 00080) (Only available in the same LAN)

For PPPoe, Static and DHCP, after setting IP address of DVR, the extranet port shall be mapped on the router before visiting DVR through public network.

Note: Save after setting to make effective. If there are multiple DVRs in a LAN, make sure their MAC addresses are different (Refer to System).

8. Substream

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Network" \rightarrow "Substream" to enter into the interface shown as Picture 5-12.

Parameter				
Display			Bitrate	
Record	Enable			- i
L Network	Enable			
	Enable			
	Enable			
ubStream	Enable			
	Enable			· 11.
	Enable			
mail Schedule	Enable			
	Enable			
	 Frehla		сл	<u> </u>

Picture 5-12

- Video: Substream switch. Select Enable to preview the substream in the client, so as to ensure smooth playing; If Disable is selected, the client can only choose mainstream preview.
- FPS: FPS for network transmission. User may select value in the drop-down list.
- Bitrate: Bitrate for network transmission.
 User may select value in the drop-down list.
- ➤ Audio: Click √ and audio will play during network transmission.
- Synchronous transmission.

9. E-mail

Go to "Main Menu" → "Parameter" → "Network" → "Email" to enter into the menu interface. Receive or Send DVR alarm Email and set parameters like Email address, SSL, Email Enable, Interval and Email Schedule. The related parameter setting should be consistent with DVR local

setting. Refer to Picture 5-13.

\$		4		٧
Parameter				
💻 Display	Email	Disable		
Record				
곱 Network	SMTP Port SMTP Server			
Network	Sender			
SubStream	Sender Password Receiver			
Email	Interval			
Email Schedule				
DDNS				
Alarm			Default Save	Cancel

Picture 5-13

10. E-mail Schedule

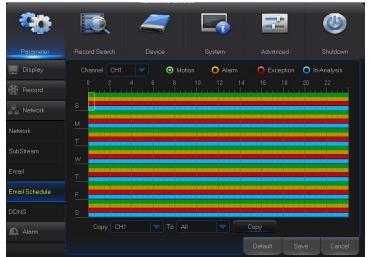
Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Network" \rightarrow "E-mail Schedule" to make Email schedule, as shown in Picture 5-14.

Select the channel and the date to be set. One week's schedule can be set.

The record schedule of the current channel can be copied to any other channel or all channels.

Note:

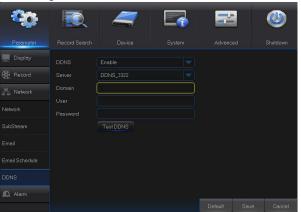
- 1. Green stands for Motion: Email will be sent in case of object motion;
- 2. Yellow stands for Alarm: Email will be sent in case of IO alarm;
- 3. Red stands for Exception: Email will be sent in case of exception, e.g. HDD full, HDD damage, Video loss, etc.



Picture 5-14

11. DDNS

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Network" \rightarrow "DDNS" to enter into the menu interface. User may set DDNS in any one of the above 3 network connection types after applying dynamic domain service. User may remotely access DVR through domain by using browser in the form of http://applied domain: mapped Web port number. When using DDNS domain name to access DVR, user shall confirm that the port can be normally connected to current IP on the public network and the settings for server address/host name/user/password/setting should be consistent with DVR local setting. See Picture 5-15.



Picture 5-15

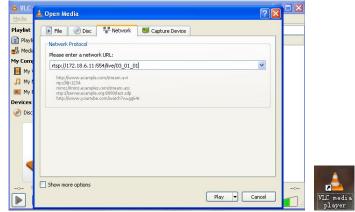
12. RTSP

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Network" \rightarrow "RTSP" Set User Name and Password to view video by PC software VLC (See Picture 5-16)

\$	I	_	Ň	٧
Parameter	Record Search			
💻 Display	RTSP Enable	Enable		
Record		Enable		
P Network	RTSP Port RTSP UserName	00554 admin		
Network	RTSP Password			
Substream		'IP:Port/live/chA_B_C		
	A:00(ch1),01(ch2 B:00(main stream			
Email Schedule		01(video),02(audio)		
RTSP				
FTP			Default	



Follow the instruction to input IP and port to preview video (See Picture 5-17)



Picture 5-17

13. FTP

Go to "Main Menu" → "Parameter" → "Network" → "FTP"

Set IP, User Name and Password to view the captured pictures in the server (See Picture 5-18). Enter into <u>ftp://relay.anw.ru/</u>and input User Name and Password to view the captured pictures (See Picture 5-19)

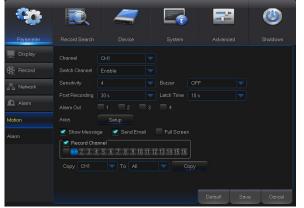
60	I.	_	N.	۷
Parameter				
Record	FTP Enable Server IP	Disable		
Network				
Email Schedule				
	×			
🕰 Alarm			Default	Save Cancel

Picture 5-18

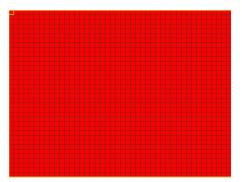
Picture 5-19

14. Motion

Go to "Main Menu" \rightarrow "Parameter" \rightarrow "Alarm" \rightarrow "Motion" to enter into the interface shown as picture 5-20







- > Channel: Enable or disable Motion function.
- Sensitivity: Support 1-8 level, 8 is the highest level.
- Buzzer: When detecting object moving, buzzer makes alarms (disable, 10 seconds, 20 seconds, 40 seconds and 60 seconds).
- Alarm Out: Connect to the alarm switch of the alarm apparatus.
- Show Message: Messages will be displayed on the screen when moving object is detected and alarms are made.
- Send Email: When moving object is detected, send Email to the specified Email address.
- Full Screen: When moving object is detected, messages will be displayed in full screen.
- Latch Time: When moving object is detected, the alarm time can be set as 10 seconds, 20 seconds, 40 seconds and 60 seconds.
- Post Recording: After the alarm finishes, the duration time of the alarm recording can be set as 30 seconds, 1 minute, 2 minutes and 5 minutes.



Area: Click it to enter into the interface shown as Picture 5-21 to set the motion detection area to be monitored intensively.

A single channel is divided into 15×12 (PAL) or 15×10 (NTSC) configurable grids. The red grids indicate that the motion detection in the area is enabled, white semitransparent ones indicates that the motion detection in the area is disabled. After setting is completed, right click the mouse button to return and click Save to make the parameter setting effective.

Record Channel: When object motion is detected, the record channel setting will be activated.

15. Alarm

Go to "Main Menu" \rightarrow "Alarm" \rightarrow "Alarm" to enter into the interface shown as Picture 5-22.

*					
Parameter					
Display	Channel				
Record	IO Status	Normally-Open			
Network	Latch Time				
D 44					
D. Alarm					
Jarm	Show Messe	annel	Full Screen		
			Сору		

Picture 5-22

It is the alarm management and setting of the machine. User may set alarms under different status in the interface. Please refer to Table 2-4.

- Alarm In: User may set four groups of alarm input.
- Alarm Type: There are three kinds of status, i.e. Always ON, Always OFF, and OFF. Always ON: When the trigger is on, I/O alarm appears; Always OFF: When the trigger is off, I/O alarm appears; OFF: Do not receive I/O alarm from trigger.
- Buzzer Time: You can set how long the buzzer will sound when motion is detected (off, 10s, 20s, 40s, 60s)
- > Alarm out: Connect the external alarm switch.
- Show Message: Display the alarm messages on the screen when motion alarm is detected.
- Send Email: Set to send email to specified email when motion alarm is detected.
- Full Screen Alarm: When the motion is detected, the corresponding channel will be switched to the full screen mode.
- Latch time: you can set how long the buzzer will sound when object move is detected by external sensor (10s, 20s, 40s, 60s)
- Post Recording: You can set how long alarm record will last when alarm ends (30s, 1minutes, 2minutes, 5minutes).
- > Record Channel: The record channel will be activated when the object move is detected.
- Copy: Allow you copy current channel parameters to any other channel (setting of record channel cannot be copied).

Alarm Type	Functions & Descriptions
Video Loss	When DVR fails to receive video signals due to some problems (camera damage, line dropout or damage, power failure), the alarm will appear.
Motion Detection	When IP camera detects object moving, alarm will be activated. Sensitivity is subject to the actual application environment test. Sensitivity is adjusted according to the sensitivity of moving object detection and parameters are modified by combining the area setting .
I/O Status	Communicate with alarm device through I/O port. Alarm signals sent by IR sensor or other devices will be transformed to the system recognized signal and activate relevant channel to record or control the device output.
HDD Status	Alarm will appear when HDD does not work due to damage, power failure, HDD auto-overwrite off and insufficient space.

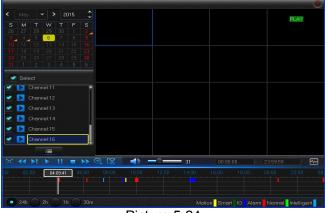
Table 2-1

5.2.2 Record Search

1. General

Go to "Main Menu" \rightarrow "Record Search" \rightarrow "Record Search" to enter into the interface shown as Picture 5-23.





Picture 5-24

Time Axis setup, file clip and zoom in/out

- Channel: Select the channel you want to search.
- Type: Select the type the playback record. There are two options, i.e. Normal and Alarm.
- Start Time/End Time: Select the specific period of time. The default setting is from 0:00 to 24:00.
- Playback Channel: Click a date and select corresponding channel in Playback Channel. The selected channels shall not be more than 16, as shown in Picture 5-24.
- Playback: Select the desired year and month and click "Search". If there are any records, a yellow corner mark which shows the recording at specific date will appear at the down-right corner of the date sheet. Select the date checkbox and select playback channel and click Playback to enter into the interface.
- Playback interface: You can use the Playback Control bar to operate the Fast Forward (X2, X4, X8 and X16), Rewind (X2, X4, X8 and X16), Slow play (1/2, 1/4 and 1/8 speed), Play, Pause/Frame. You can click or drag the volume control bar to adjust volume. When playback ends, DVR will remain in the playback interface, as shown in Picture 5-25.



1) The DVR supports the processing control bar function when playing back record files (See Picture 5-25 and 5-26)

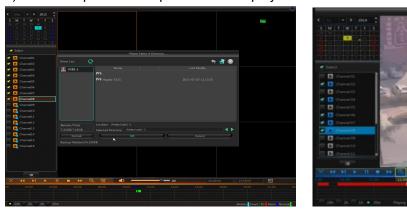
Picture 5-25

Picture 5-26

Time Axis zoom: Default value is 24hours. Allow user to select 2 hours, 1 hour, 30 minutes or user-defined.

> Detailed Operation:

Fixed time axis: If you select [2h] option, that means the processing control bar cover two-hour video content. The time range refers to 1 hour before and after the middle point. 2) Record clip and backup function and playback zoom in/out function.



Picture 5-27

Picture 5-28

- Clip and backup: When it is under single channel playback, the [] icon will appear in the Play Control bar shown as Picture 5-27. Click the icon to start video clip function, click the icon again to end the function and pop up the dialog shown as Picture 5-27. Now, you may save the clipped video file.
- Zoom out: When it is under single channel playback, the O icon will appear in the Play Control bar. Click the icon to zoom in certain area of the playback screen and right click mouse to return the Playback page (See Picture 5-28)

2. Events

Go to "Main Menu" \rightarrow "Record Search" \rightarrow "Events" to enter into the interface shown as Picture 5-29.

In this page, user may search details by date, time, channel and record type. The relevant operations are as follows:

\$		D,	d	4			4	٨
	Record	Search						
🎇 General	Date	05/07/2	015	📆 Time 00	00:00	23:59:	59	
Events		All				Quick E	lackup	Search
		Channel	TYPE	Date	Start Time	End Time	Size	Playback
		CH3	N	2015/05/07	10:49:18	10:49:42	6MB	
					10:49:19	10:49:41	6MB	
					10:49:20	10:49:42	10MB	
					10:49:21	10:49:43	11MB	
					10:49:21	10:49:43	11MB	
					10:49:21	10:49:43	11MB	
					10:49:21	10:49:43	11MB	
					10:49:21	10:49:43	11MB	
				2015/05/07	10:49:21	10:49:42	11MB	
					10:49:21	10:49:42	11MB	
		СН14			10:49:21	10:49:42	10MB	
							1/2 0) 💽 >>
							Back	

Picture 5-29

i Previous page; Click the button to go to previous page when viewing events (except the first page). When viewing the first page, click this button to display the event list in the first page.

: Next page; Click the button to go to next page when viewing events (except the last page). When viewing the last page, click this button to display the event list in the last page.

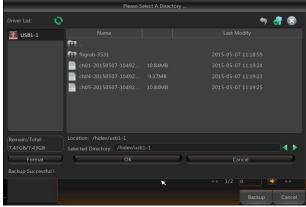
i Jump; Input the desired record event page in the input box and click arrow button to jump to the input page.

Two types of backup: Quick Backup and Backup

If you want to back up a record in the detailed file list, you may tick the checkbox at the left of the record (" $\sqrt{}$ "means it has been selected) and click "Backup" to enter into "Select backup type" (Make sure U disk or other portable storage device are connected), as shown in Picture 5-30.

80		D,		4	7			7			N	4		
	Record	Search									Advai			
😭 General	Date		2015	30		00:	00:00			23:59				
O Events		All				All					Back		Sear	rch
		Channel	TYPE		Date		Start Time		End	i Time		Size	Play	back
		CH3	N	201	5/05/0		10:49:18		10:4	49:42		6MB		1
							10:49:19			49:41		6MB		
							10:49:20			49:42		10MB		
					5/05/0		10:49:21			49:43		11MB		
							10:49:21			49:43		11MB		
					5/05/0		10:49:21			49:43		11MB		
							10:49:21			49:43		11MB		
							10:49:21			49:43		11MB		
							10:49:21			49:42		11MB		
							10:49:21			49:42		11MB		
							10:49:21			49:42		10MB		
						×								
												Bacl	kup	Cancel

Picture 5-30



Picture 5-31

3. Play Backup Files

1.Copy backup files to the computer.

2. Open playback player and click "+" or " To rexample, if you want to choose

*.264, add backup file and select a file to play, as shown in Picture 5-32 and 5-33.

Player	■_□×	¢ Video player	≡ _ ¤ ×
Д M	File list	II → File list	
Dpen file -	11-09-40.h264	Ch01-20140910-184 Cook ir: 20140910 ↓ ← 1	
Ready	* = * • • • = 0 ≣	Ny. Computer File name: ch01-20140910-184116-184549-101000000000 • Open My. Network, Places Files of type: 264 File(* 264) • Cancel	- * 0 =

Picture 5-32

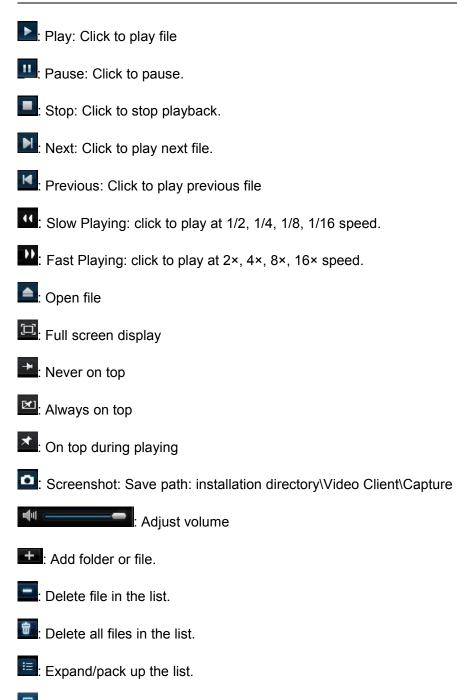
Picture 5-33

After backup finishes, message Backup Finishes will appear at down-right corner, as shown in Picture 5-31.

If you want to back up with USB/ESATA, select USB/ESATA and click OK to start processing and you may see the backup

progress shown as Picture 5-30.

Note: Before backup, connect devices for backup (U flash disk or other mobile storage devices with USB interface)



E: Advanced configuration: Set the save path for the captured pictures and set the display language of player, as shown in picture 5-34.



Picture 5-34

5.2.3 Device

1. HDD

Go to "Main Menu" \rightarrow "Device" \rightarrow "HDD" to enter into the interface shown as Picture 5-35.

<u> </u>			4				٧
		earch	Device				
🖸 нор	No	State	Free/1	otal	Free Time	Selec	,
🔶 PTZ							
Cloud							
	Overwrite	Auto	F	ormat HDD			
					Default	Save	Cancel

Picture 5-35

HDD		5 4-4-	F (F-4-1	Euro Timo	Calant
	No	State	Free/Total	Free Time	Select
PTZ		ОК	1850G/1863G	43Hour	<u> </u>
Cloud	2		Notice		0

Picture 5-36

When HDD is connected, the system will automatically detect if HDD is normal or not; If HDD need to be formatted, status will be shown as "Not formatted". Select the HDD and format the HDD. If the system detects HDD is normal state, the HDD status will be shown as "Normal". See Picture 5-36

- **No.:** Number of HDD connected to system.
- Status: It shows the current status of HDD. It will be available only when HDD is "Normal".
- Free/Total Space: Remaining or total space of HDD
- Free Time: Remaining time for HDD recording according to currently set "Resolution", "Encoding Rate" and "Frame Rate" of image.
- Auto-overwrite: When set to ENABLE, the NVR will overwrite the oldest files on the hard drive if hard drive space is full. When set to DISABLE, the NVR will stop recording if hard drive space is full. Overwrite time: 1 day, 3 days, 7 days, 14 days, 30 days and 90 days. It means the longest storage time of records in HDD. If the time is over, the records will be deleted. For example, if the time is set as 3 hours and the data in HDD include 12, 13, 14, 15, 16, 17, 18, 19 and 20 o'clock, then data 18, 19 and 20 will be saved and data 12, 13, 14, 15, 16 and 17 will be deleted.
- **Format HDD:** Format HDD for the first use.

Note: Recording can only be performed when HDD is in "Normal" state.

Select a PTZ channel and set PTZ protocol (Pelco-D, Pelco-P), Baudrate (1200, 2400, 4800, 9600), DataBit(8, 7, 6, 5), StopBit (1, 2), Parity (None, Odd, Even Mark Space),

Parameter setting for above channels must be the same as that of PTZ so that PTZ can be controlled. The protocol, baudrate and

Address and Cruise.

PTZ address must be set.

5.2.4 PTZ and Cloud Storage

1. PTZ

Go to "Main Menu" \rightarrow "Device" \rightarrow "PTZ" to enter into the interface shown as Picture 5-37.

\$			14	٧
	Record S	earch <u>Device</u>		
д нор	Channel			
PTZ		Pelco-D		
Cloud	Baudrate	9600		
	DataBit			
	StopBit			
	Parity	None		
		Enable		
		001		
		11 To All		
			Default Sav	ve Cancel

Picture 5-37

2. Cloud Storage

Cloud: Cloud Space (Network HDD). It can upload the DVR periodically captured pictures and motion detection captured pictures to Dropbox

- 1) Register in Dropbox website, Address: <u>https://www.dropbox.com/</u>
- 2) Configure network to ensure the normal operation of DVR network.
- 3) Configure Cloud: Enable Cloud and set the channel and interval for DVR periodically captured pictures; Enable Motion Detection to get captured pictures for motion detection.
- DriName refers to the name created in the folder of Dropbox and the name can be defined by the user, e.g. CloudDVR000. The folder is to store the DVR periodically captured pictures) (See Picture 5-38).
- 5) Click [Advanced E-mail Setup] to set the Email box. User shall input his Email. (See Picture 5-39)

.			🍄 💽 🧲 🖬 🤇	٧
Parameter	Record Search Device System	Advanced Shutdown	Parameter Country Email	
PTZ	Cloud Storage Disable Cloud Type DroPBCX Channel Time trigger I min Motion Detection Disable Driver Name CloudDVR		Image: PTZ Email Disable SSL Disable Image: Port SMTP Port 00025 SMTP Server Sender Sender Password Receiver	
	Activate Cloud Advanced E-mail Setup	Default Save Cancel	Default Save Cancel Default Save	Cancel

Picture 5-38

Picture 5-39

6) Click [Active Cloud] to activate Cloud and Email will receive the URL related to Cloud

User input the registered user name to visit the above website and the following interface will be popped up.

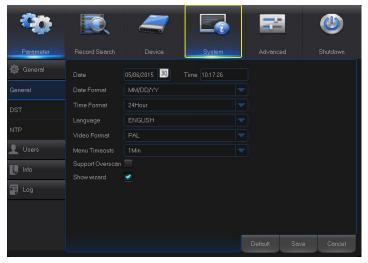
7) Click the icon at the upper-left to view the folder(CloudDVR000) made in the 4th step .

8) Enter the folder to view the DVR captured pictures .

5.2.5 System

1. General

Go to "Main Menu" \rightarrow "System" \rightarrow "General" \rightarrow "General" to enter into the interface shown as Picture 5-40

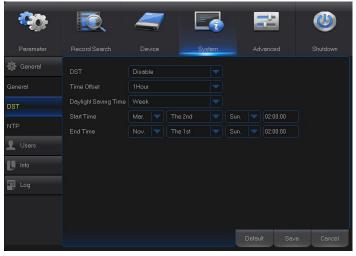


User may set Date, Time, Date Format, Time Format, Language, Video Format, Menu Timeouts and Show Wizard in this page.

Picture 5-40

2. DST

Go to "Main Menu" \rightarrow "System" \rightarrow "General" \rightarrow "DST" to enter into the interface shown as Picture 5-41



Picture 5-41

Enter into the interface shown as Picture 5-41 to set DST, Time Offset, Start Time and End Time.

time.nist.gov,

service: Enable/Disable NTP

Server Address: Select NTP server

Time Zone: Corresponding time zones

Update Time: Enable NTP function and

save parameters and click Update Time

Note: When NTP function is set to "Enable", system will calibrate the system time at every 00:07:50 and

for various nations or regions.

to calibrate the system time.

3. NTP

Go to "Main Menu" \rightarrow "System" \rightarrow "General" \rightarrow "NTP" to enter into the interface shown as Picture 5-42.

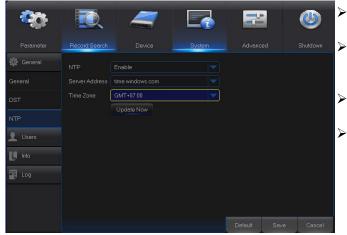
NTP

function.

pool.ntp.org).

every start-up.

(time.windows.com,



Picture 5-42

4. Users

Go to "Main Menu" \rightarrow "System" \rightarrow "Users" to enter into the User interface shown as Picture 5-43.

\$	Q	2		2	٩
Parameter			System		
🧔 General	No.	User Name	Level	Enable	
👤 Users		admin	ADMIN	Enable	
Info			USER1		
🗐 Log					
					Cancel





Picture 5-44

It supports up to seven users, including one administrator and six users. Click [Edit] button to enter into the [User Edit] interface to input user name and password, as shown in Picture 5-43

User Name consists of 8 characters and password is composed by number 0-9 with max length of 8 numbers

Set user password. Administer is authorized to set user common user's authority, as shown in Picture 5-44

- Log Search: allow you check all the system logs.
- > **Parameter:** allow you set all the parameters.
- Maintain: allow you update version, recover ex-factory value, device reboot and shut down.
- Disk Management: allow you manage and control the HDD and USB drive.
- Remote Login: allow you remotely login DVR.
- SEQ Control: allow you sequence live screens for all the channels.
- Manual Record: allow you manually start/stop record.
- **Backup:** Tick-select the ENABLE " $\sqrt{}$ " option and select channel for backup, the user is allowed to backup the record in the selected channel.
- > Live: Tick-select the ENABLE " $\sqrt{}$ " option and select a channel and the user is allowed to view all the live images in the selected channel.
- Playback: Tick-select the ENABLE "√" option of Playback and the common user is allowed to playback the selected record in the channel.

5. User Edit

User may enable or disable the function or set password (See Picture 5-45)



Picture 5-45

6. Info

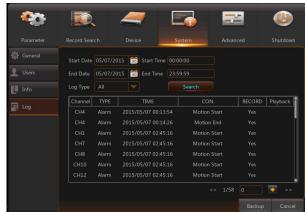
Go to "Main Menu" \rightarrow "System" \rightarrow "Info" to enter into the interface shown as Picture 5-46.

Peremeter	Record Search	Device	System	Advanc	ed	Shutdown
 General Users Info Log 	Device ID Device Nome Device Type Hardware Varsion Software Varsion IE Chant Varsion IP Address MAC Address HED Volume Video Formet	000000 000 000 000 000 000 000 000 000 000 000 00				
					Save	Cancel

Picture 5-46

7. Log

Go to "Main Menu" \rightarrow "System" \rightarrow "Log", as shown in Picture 5-47



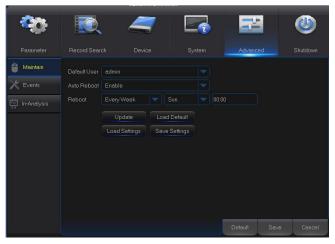
Picture 5-47

User may search log information in different period of time. Click "Backup" to save all the log information, as shown in Picture 5-47.

5.2.6 Advanced

1. Maintain

Go to "Main Menu" \rightarrow "Advanced" \rightarrow "Maintain" to enter into the interface shown as Picture 5-48.



Picture 5-48

- Auto Reboot: Enable the auto maintenance function to reboot system regularly at every day/week/month. When Auto Reboot is enabled, DVR should be in the main interface and no user operation.
- Update: Click Update to enter the Device interface and select the updating file in USB to execute.
- Load Default: If [Load Default] is selected, you can initialize the system to the ex-factory default. Click "Load Default" and select items to be restored
- **Load Settings:** Load parameters in the removable storage device to DVR.
- Save Settings: Save the set parameters of user's DVR to the removable storage device.

Note: Do not take out the USB memory or cut off the power during upgrading. When the update is done, system will be automatically restarted. After about 5 minutes, the upgrading will be finished. It is recommended to **load ex-factory default** after upgrading. The auto maintain function can be effective only when DVR returns back to Preview mode with no any operation within the set auto maintain time.

2. Events

Go to "Main Menu" \rightarrow "Advance" \rightarrow "Events" to enter into the interface shown as Picture 5-49.

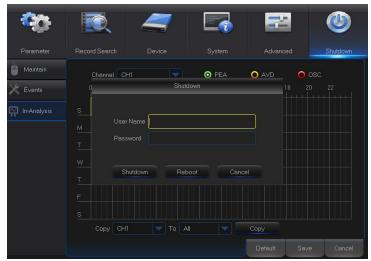


Picture 5-49

- Event Type: Support three abnormal types: Disk Full, Disk Error and Video Loss.
- Enable: Active alarms for abnormal situations.
- Alarm Out: Enable or disable alarms
- Latch Time: How long the buzzer will sound when external sensor alarm is detected (10s, 20s, 40s, 60s).
- Show Message: You can set show message on the screen when sensor alarm is detected.
- Buzzer: How long the buzzer will sound (10s, 20s, 40s, 60s).
- Send Email: Select to send Email to specified Email address when abnormal events appear.

5.2.7 Shutdown

> Go to "Main Menu" \rightarrow "Shutdown" to enter into the interface shown as Picture 5-50.



Picture 5-50

5.3 Menu Lock

In consideration of system safety, user may click the icon on the toolbar when he leaves away from DVR and the system interface will be locked. User has to input Device ID, User Name and Password on the login interface to unlock (**Default: User Name: admin, Password: blank**). The login interface is as shown in Picture 5-51.

1	ogin
Device ID 000000 User	[(000000)
Password	
Login	Cancel

Note: Administrator has all authorization of menu operation and users have limitations for authorization and have to get authorization from administrator.

5.4 Split Mode

There are many display modes in video channel, including single channel display, SEQ display and split mode.

5.5 Record Search

Click

icon on the toolbar to enter into the Record Search interface to search and playback.

on the toolbar to start

Refer to former section for specific operating method.

5.6 Mute

Click icon on the toolbar or Mute button on the panel or remote controller to control the mute of NVR.

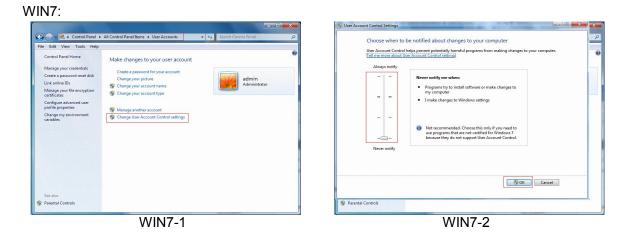
5.7 Start Sequence

After set channel sequence time, click Start Sequence icon sequence.

Chapter 6 Web Application Manager

6.1 ActiveX control download and installation

Open your web browser and input the IP address and Web port number of DVR, such as: <u>http://172.18.6.202:8080/</u>. If your computer is connected to internet, it will download and install "ActiveX" plug-in automatically. If you use Windows Vista or Windows 7 and unable to backup or record during remote operation, please check the user authorization.



Note: If the ActiveX control is not downloaded successfully, please check if your browser's safety level or firewall setting is set too high. Please open IE browser \rightarrow [Menu Bar]Tools \rightarrow Internet options \rightarrow Security \rightarrow Internet \rightarrow Custom Level \rightarrow Enable the options (Refer to the Picture 6-1-1 and Picture 6-1-2).

If the web application runs for the first time, please wait for about one minute to finish downloading.

If you want to use the undated ActiveX control at a computer which you have already logged in before, please delete the original control and click [Start \rightarrow Run] and then input the command characters: "regsvr32/u HiDvrOcx.ocx". Press OK. When you log in at the next time, new ActiveX control will be automatically downloaded. Please wait.

nternet Options	8 23	Internet Options	8 2
ecurity Settings - Internet Zone	83	Security Settings - Internet Zone	
Settings		Settings	
		Automatic prompting for ActiveX controls Disable Takes effect after you restart your computer	t does not use
*Takes effect after you restart your computer		Reset custom settings	
Reset custom settings Reset to: Medium-high (default)	Reset	Reset to: Medium-high (default)	Reset
ОК (Cancel	OK	Cancel



Picture 6-1-2

6.2 Web Application Manager Login

After ActiveX controls installation, please input user name and password, select Main Stream or Sub Stream (In general, select main stream for intranet and sub stream for outer net), and input web port number and select language in the interface (See picture 6-2). There is an option for opening all channel preview, select it to open all live pictures. Press Login to log in client and remotely visit DVR. The default password is blank and administer is authorized to modify the password. Set password as per introductions of user management in system setting.

	User login	
User Name	admin	
Password		
Client Port	14788	
Bitrate	Sub stream	~
Language	English	~
Remember Pwd	Open All Ch	annels Previe
Login	Rese	t

Picture 6-2

After successfully log in, it will enter the real-time monitoring interface and connect video automatically, as shown in Picture 6-2.

6.3 Live Interface

Live	layback Remo	te Setting Local :	Setting Logo	ut	
CH01 > 1년3 (189 CH02 > 1년3 (189 CH03 > 1년3 (189	CH01 (N40384 IS1039 00	CH02 1045-044 (3-3-23) 00	СН03 (лебани 15 6:52) от	CH04 Kotkatel (5.947) ot	
CH04 🕨 🖄 10월 CH05 🕨 4월 10월 CH06 🌶 4월 10월	CH05	CH05	CH07	CH08	012345678910
СН07) 163 (163 СН08) 163 (163 СН09) 163 (163					200M + Focus IRIs H
CH10 > 사업 1089 CH11 > 사업 1089 CH12 > 사업 1089 CH12 > 사업 1089	CH09 Retident Scitlad an	CH10 RentSekt 15:0:00 arcs	CH11 914054441554(0) 911	СН12 Колени 5 осн он	Preset 1 +
CH14 🕨 x월 169 CH15 🌶 x월 169 CH16 🌶 x월 169	CH13	CH14 Retrievel 550-01	СН15 леган 15 6 гл	CH16 R020111 5 00 J	× * • •
	001	001	ati	0h	Default
	🖻 🗏 🕞 🖨			■ ■ •)	

Log in and enter into the live interface, as shown in Picture 6-3.



6.3.1 Menu Bar

Menu Bar: Live, Replay, Configuration, Local Setting and Logout.

1. Live Display

Log in the Web Application Manager, system will be defaulted to enter into <Live> interface shown as Picture 6-3. You can click [Play] button to Open/close live images, on-spot record, capture, and many live display modes.

Buttons on a single live interface:

Volume switch

ERECORD switch: the remote record switch of client. Record will be automatically saved to

a specified position on PC after the function is enabled.

EXECUTE: Snapshot: Capture the selected live image and save it to a specified position on PC. The image is saved as *.bmp format.



Open or close the images on Live window.

Or **click the right key of mouse on each <Live> window** to pop up channel operation menu as shown in Picture 6-4

Show bit rate

Picture 6-4

Show bit rate: Tick Show Bit rate to show IPC bit rate in current window.



Switch display mode in channel window



: Open all the Live channels.

: Close all the Live channels



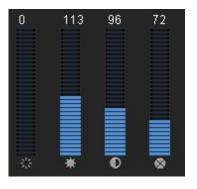
E Display previous group of channels



Display next group of channels

Click to maximize the current window to full screen. Right click to pop up menu option and select Exit Full Screen.

2. Video Control



Picture 6-5

Adjust the chromaticity of video

Adjust the brightness of video

Adjust the contrast of video

Adjust the saturation of video

6.3.2 Playback

0

Playback to enter into Playback interface to remotely view the records in DVR Click

HDD, as shown in Picture 6-6.

	Liv	e				Pla	yback Remote Se	etting Lo	cal Setting		Logout		
-		20	14	7		•							
							Playback.window:01		0000-00-0	00:00:00	Playback window:02		00:00:00
20			23 30			20							
	Type				~								
				pla	back								
		101			CH09								
							L						
							Playback window:03		0000-00-0	00:00:00	Playback window:04	0000-00-	00:00:00 00
	CH				CH13								
	CH				CH14								
	CI	107			CH15 CH16								
	CH	108			JH16								
	_				_								
	a		Searc	ħ.									
								11 II M	8.0	<u>+</u>	1 V8x 1/4x 1/2x 1 2x 4x 8x		DЦ
							Window01						
							Window02						
							Window03						
							14//- d04						

Picture 6-6

It supports 1 to 4 channel record playback.

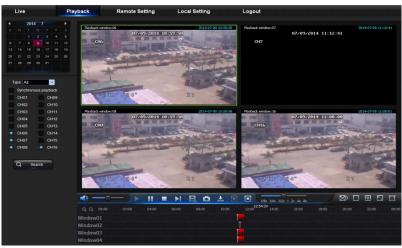
1. Record Search

a

Search

Record playback procedure

Firstly, select the date you want to check and tick 1 to 4 channels. Any record files in current channel at current date will be displayed in the status bar of the interface. (See Picture 6-7)

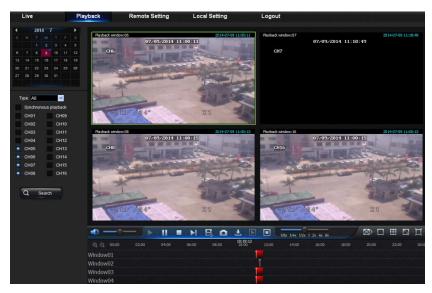


Picture 6-7

Secondly, select record type (Normal record, Alarm record and All) and channels, and then click

", and time axis panel will display specific time quantum, as shown in Picture 6-8.

On the time axis, red part stands for alarm record, yellow stands for normal record and original part stands for no record during this period.



Picture 6-8

Before playback, choose to enable playback 4 channels synchronously. If you tick-select "Synchronous playback", that means the selected channel will playback synchronously; otherwise, you could separately control the channels playback. Thirdly, start playback

Click to start record playback. When mouse curse is moving on the time axis, the time point of current position will be displayed on the time axis screen. Click to locate the record. Click the

icon or to zoom in/out the time bar display ratio, as shown in Picture 6-8.

2. Playback Control

Playback control bar, as shown in picture 6-9.

Detailed brief description is shown as below list

Key	Description	Кеу	Description
	Play		Enable the volume switch
	Pause		Volume adjustment bar
	Stop	1/8x 1/4x 1/2x 1 2x 4x 8x	Slow playing 1/2,1/4, 1/8, Fast playing 1/2/4/8
M	By frame		Stop playing all the files
	Record Clip		Single channel mode
	Snap		Quad mode
±	Download	Ц	Full Screen
	Open all the playback channels		Stop playing all the playback

Record file clip

Table 6-1

After opening playback, click icon to clip the selected file; and click again to stop the clip function. Then playback clip is successfully done. Record clip file will be saved as *.264 format.

Snapshot function

Move the mouse curse to the channel you want to capture, and click [[1]] icon to capture the live images remotely. After capturing the images successfully, a path prompt box will be popped up, as shown in Picture 6-10.



Picture 6-10

The captured file will be saved as .bmp format.

Record file download

Click download icon "²" on the control bar to display all the matched record file according to the search conditions of channels, as shown in picture 6-11.

Г	Index	Start time	End time	State]]
	1	2014-07-09 10:59:55	2014-07-09 11:01:05	Not download	
	2	2014-07-09 11:02:02	2014-07-09 11:17:40	Not download	
	3	2014-07-09 11:17:40	2014-07-09 11:25:16	Not download	12
	4	2014-07-09 11:26:18	2014-07-09 11:30:38	Not download	1
	5	2014-07-09 11:31:40	2014-07-09 11:32:36	Not download	
<					Î

Picture 6-11

Tick-select the record file you want to download and click [Start download] .System will download the record file in sequence and save to local PC. The downloading file will be displayed in percentage form. After downloading finishes, "Complete" will be displayed on the status bar.

6.3.3 Remote Setting

Click Remote Setting to enter into the interface shown as Picture 6-12, including Display, Record, Network, Alarm, Device, System and Advance.

Live	Playback	Remote Setting	Local Setting	Logout
Display	Live	Сору	Refresh Save	
Live	Channel	CH1		~
	Name	CH1		
Privacy Zone	Position	U-L		~
Record	Covert	Disable		~
i i i i i i i i i i i i i i i i i i i	Record Time	Enable		~
Network	Show Time	Enable		×
Alarm				
Device				
System				
Advanced				

Picture 6-12

1. Display

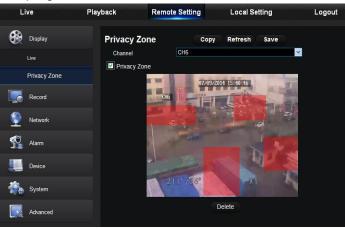
Unfold [Display] option to find its sub-options: Live and Privacy zone.

1) Live: You may change channel name, position, channel preview and relevant parameters. If show time is set as <disable>, current DVR system time will not appear on the screen on Live mode. (See Picture 6-13)



Picture 6-13

2) Privacy Zone: Each channel can set 4 privacy zones, as shown in Picture 6-14. The relevant parameters should be consistent with DVR local setting. Select zones to be deleted and click "Delete" and click "Save" at up-right corner.



2. Record

Click <Record> option to unfold its sub-options: Record parameter and Schedule.

1) Record Parameters. The parameters should be consistent with DVR local setting, as shown in Picture 6-15.

Picture 6-14

Live	Playback R	mote Setting	Local Setting	Logout
Display	Rec Paramete		by Refresh Save)
Record	Channel Record	CH1 Enable		¥
Rec Parameters	PreRecord	Enable		~
Schedule				
MainStream				
Network				
Narm				
Device				
System				
Advanced				

Picture 6-15

2) Record Schedule. The parameters should be consistent with DVR local setting, as shown in Picture 6-16.



Picture 6-16

Green stands for Normal record; Yellow stands for Motion detection; Red stands for I/O trigger record. 3) Mainstream: User may set Mainstream, as shown in Picture 6-17. The relevant parameters should be consistent with DVR local setting.

Live	Playback F	Remote Setting	Local Setting	Logout
Display	MainStream	Сору	Refresh Save	1
Record	ResolutionMode	960H		× .
Rec Parameters	Channel	CH1		~
Schedule	Resolution	WD1		~
MainStream	FPS Bitrate	25 2048		✓
Network	Audio	Disable		~
Narm				
Device				
System				
Advanced				

Picture 6-17

6.3.4 Network

Unfold <Network> to show its sub-options: Network, Email, and DDNS configuration, as shown in Picture 6-18.

1. LAN setting

DVR supports Static/DHCP/PPPOE modes. System default network type is <Static>. User can set parameters as required. After the network parameters are modified successfully, DVR will automatically restart to make the setting effective.

Live	Playback	Remote Setting Local Setting	Logout
🛞 Display	Network	Refresh Save	
Record	Type Client Port	DHCP V DHCP PPPoE	
Network	HTTP Port	Static 3G	
	IP Address		
Network	Subnet Mask	255.255.255.0	
SubStream	Gateway		
Email	DNS 1	221.5.88.88	
	DNS 2	0.0.0.0	
DDNS	UPNP	Enable	
RTSP			
FTP			
Narm			
Device			
System			
Advanced			

Picture 6-18

2. Substream

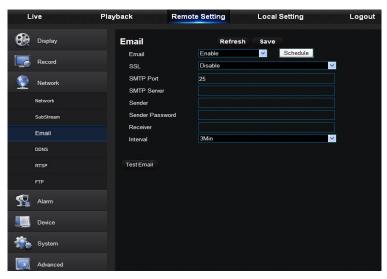
User may set Mainstream, as shown in Picture 6-19. The relevant parameters should be consistent with DVR local setting.

L	ive	Playback	Remote Setting	Local Se	etting	Logout
@	Display	SubStream	, c	Copy Refresh	Save	
		Channel	CH1		~	
	Record	Video	Enable		~	
۲	Network	FPS	3		~	
-	HELWOIK	Bitrate	64		~	
	Network	Audio	Disable		~	
	SubStream					
ľ	Email					
L)	DDNS					
Ţ.	RTSP					
ł	FTP					
50	Alarm					
4	Device					
-	System					
	Advanced					

Picture 6-19

3. Email

Email: Set DVR alarm Email configuration parameters, including Email address, SSL, Email Enable, Interval and Email Schedule, etc. Detailed parameters should be consistent with DVR local setting. Refer to Picture 6-20.



Picture 6-20

4. DDNS

DDNS: After user applies for DDNS service, you could enable <DDNS> function under any one network type mode (Static, DHCP and PPPoE). And you may remotely visit the NVR through domain name (http://domain name: Web port No.). When visiting DVR by using DDNS, user should make sure port and current IP can be normally connected in public network. Details settings, including server address, host, user, and password, should be consistent with NVR local setting. Please refer to Picture 6-21.

L	ive	Playback	Remote Setting	Local Setting	Logout
-	Display	DDNS	Refre	sh Save	
	Record	DDNS Server IP	Enable NO-IP		~
۲	Network	Host Name User Name			
	Network	Password			
	SubStream				
	Email	DDNS Test			
	DDNS				
	RTSP				
	FTP				
<u>9</u>	Alarm				
	Device				
-	. System				
	Advanced				

5. RTSP

Picture 6-21

Refer to Picture 6-22. The relevant parameters should be consistent with DVR local setting.

Live	Playback	Remote Setting	Local Setting	Logout
Display	RTSP	Refres	h Save	
Record	RTSPEnable RTSP Port	Enable 554		~
Setwork	Verify	Enable		~
Network	User Name Password	admin •••••		
SubStream				
Email		Instruction : rtsp://IP:Port	/live/chA_B_C	
DDNS		A : 00(ch1), 01(ch2		
RTSP		B : 00(main stream	n), 01(sub stream)	
FTP		C : 00(mix stream)	, 01(video), 02(audio)	
Marm				
Device				
System				
Advanced				

6. FTP

Refer to Picture 6-23. The relevant parameters should be consistent with DVR local setting.

Picture 6-22

Live	Playback	Remote Setting	Local Setting	Logout
Display	FTP	Refres	h Save	
Record	FTP Enable Server IP	Enable		
Network	Mobile Port User Name	21		
Network	Password			
SubStream	Max File Lengt	h 10		
Email	DirName			
DDNS	FTP Test			
7707				

Picture 6-23

6.3.5 Alarm

Alarm setting includes Motion Detection and I/O Alarm Parameters.

1. Motion Detection

Configure Sensitivity, Alarm out, Alarm Record and Alarm Capture, etc. Detailed setting should be consistent with DVR local setting (See Picture 6-24).



Picture 6-24

2. I/O Alarm

Set parameters for I/O Alarm, Alarm Out, Alarm Record, Send Email, etc. Detailed setting should be consistent with DVR local setting (See Picture 6-25).

Live	Playback R	Remote Setting	Local Se	etting	Logou
Display	Alarm	Сору	Refresh	Save	
Record	Alarm In Alarm Type	CH1 NC			¥ ¥
Network	Buzzer Latch Time	OFF 10s			 ✓
🔨 Alarm	☑ Show Message ■ Alarm Out	e 🗹 Send Email 🔳 Ful	l Screen		
Motion	Enable Record				
Alarm	Post Recording	30s			~
Device	Record Channel ✓ CH01	All CH03 CH04 CH05 CH05	СН06 🔳 СН07	CH08	
System	🗖 CH09 🗖 CH10 🗖	CH11 🗖 CH12 🗖 CH13 🗖	CH14 🗖 CH15	CH16	
Advanced					

Picture 6-25

6.3.6 Device

Click <Device> to unfold its sub-options: HDD and PTZ

1. HDD

User may check HDD status of DVR and overwritten time. Detail setting should be consistent with DVR local setting. Please refer to Picture 6-26.



Picture 6-26

2. PTZ

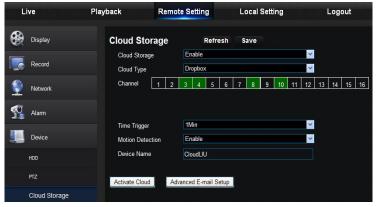
User may set the relevant parameters of PTZ. Detail setting should be consistent with DVR local setting. Please refer to Picture 6-27.

Live	Playback	Remote Setting	Local Setting	Logout
Display	РТΖ	Сору	Refresh Save	
Record	Channel	CH1		~
Record	Protocol	Pelco-D		~
Network	Baudrate	9600		~
	Data Bit	8		V
💁 Alarm	Stop Bit	1		<u>×</u>
	Parity	None		~
Device	Cruise	Disable		×
HDD	Address	1		✓
PTZ				
Cloud Storage				
System				
Advanced				

Picture 6-27

3. Cloud Storage

User may set the relevant parameters of Cloud Storage. Detail setting should be consistent with DVR local setting. Please refer to Picture 6-28-1 and 6-28-2.





Live	Playback	Remote Setting	Local Setting	Logout
Display	Email	Refres	sh Save Exit	
Record	Email	Disable		~
record	SSL	Disable		~
Network	SMTP Port	25		
	SMTP Server			
😤 Alarm	Sender			
	Sender Passwo	rd		
Device	Receiver			
HDD				
PTZ				
Cloud Storage				

Picture 6-28-2

6.3.7 System

Click <System> option to unfold its sub-options: General, Users and Information.

1. General

User may check DVR language and video system and set system time, date/time format, menu display time, DST and NTP parameters shown as Picture 6-29. Detailed setting should be consistent with DVR local setting.

Live	Playback Ren	note Setting	Local Setting	Logout
Display				
Record	General System Time	Refres		
Network	Date Format	MM/DD/YY	16 : 02 : 46	~
±	Time Format	24Hour		~
Alarm	Language	ENGLISH		<u>~</u>
Device	Video Format Menu Time Out	PAL		~
System	● DST ● NTP			
General	Daylight Saving T			~
Users	Daylight Saving Time Time Offset	1Hour		~
Info	Start Time	and the second	e 2nd 💌 Sun. 💌	02:00:00
Advanced	End Time	Nov. 🚩 Th	e 1st 🔽 Sun. 🔽	02 : 00 : 00

Picture 6-29

2. Users

User may configure user name and password and detailed setting should be consistent with DVR local setting. Please refer to Picture 6-30.

Live	Playback	Rem	ote Setting	Lo	cal Setting	9	Logout	
Display	Users			Refresh	Save			
Record		User Name admin	Password Disable	Active Enable		User Name:	user3	
Network	3	user1 user2	Disable Disable	Enable Disable	1	Password: Confirm:		
Alarm	5	user3 user4	Disable Disable	Disable Disable		Active:	Enable	~
Device		user5 user6	Disable Disable	Disable Disable		Password:	Disable	~
System	Log S	earch 🗖 Par	ameter 🗹 Maii	ntain 🗖 Manu	al Record			
General	Disk	Manage 🔳 Re	emoteLogin 🛛	SEQ Control				
Users	Back	dr	1 2 3	4 5 6	7 8	9 10 11	12 13 14	15 1
Advanced	Live		1 2 3	4 5 6	7 8	9 10 11	12 13 14	15 1
	Play	back	1 2 3	4 5 6	7 8	9 10 11	12 13 14	15 1
	E PTZ	Control	1 2 3	4 5 6	7 8	9 10 11	12 13 14	15 1

Picture 6-30

3. Information

User may search device name, device number, device type, MAC address, software version, IE version and hardware version of DVR shown as Picture 6-31.

Live	Playback	Remote Setting	Local Setting	Logout
Display	Info	Refre	sh	
Record	Device Name Device ID	DVR-16D1		
Network	Device Type	DVR16L		
nlarm	Hardware vers Software Vers		09	
Device	IE Client Vers	sion V1.1.1181.0	21	
System	MAC Address	00-23-63-30-01		
General	HDD Capacity Video Format			
Users	Client Port	14788		
Info	HIP Port	14750		
Advanced				

Picture 6-31

6.3.8 Advanced

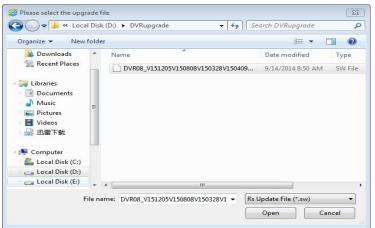
Updating procedure:

Click Advance to unfold its sub-options: Firmware Update, Load default, Events and Maintain. **1. Firmware Update**

User may remotely update DVR system, as shown in Picture 6-32.



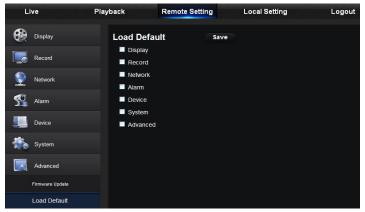
Firstly, select the update file path. The file format is .sw. Please refer to Picture 6-33.



Picture 6-33

Secondly, click "Start" to start updating. The updating progress can be seen on the screen, **2. Load Default**

User may remotely restore default parameters of DVR, with same setting method as that of DVR, shown as Picture 6-34.



Picture 6-34

3. Events

User may configure Event Type, Buzzer, Send Email, Show Message and other parameters shown as Picture 6-35. Detailed setting should be consistent with DVR local setting.



4. Maintain

Picture 6-35

Allow you remotely set auto maintain time for DVR shown as Picture 6-36. Detailed setting should be consistent with DVR local setting.

L	ive	Playback	Remote Setting	1	Local Setting	Logout
	Display Display Record Network Alarm Device System Advanced Firmware Update Load Default	Maintain Auto Reboot Reboot Select restart	R Enable Every W	lefresh	un. 💙 00 : 00	Logout
	Maintain					

Picture 6-36

5. PEA, Perimeter and Trip Line setting

Perimeter: It refers to the prohibited area with any shape set by user in the field of view. In the area, the appearance and entry of the specified type of target will be detected. The specified area and type of target can be set in the client.

Trip line: It is also called Guard Line, set by user to mark prohibited direction in the field of view. When the specified type of target crosses the line and move in the same direction as the prohibited direction, it will alarm.

Detailed setting should be consistent with DVR local setting. Refer to Picture 6-37.

Live	Playback Ren	note Setting L	ocal Setting	Logout
Display	PEA	Copy Re	fresh Save	
— .	Switch	Disable	~	07/10/2014 11:12:26
Record	Channel	CH7	×	017
Network	Buzzer	OFF	~	
	Latch Time	10s	×	
Alarm	Alarm out			The second second
	Show Message	Full Screen		
Device	Rule Number			*
💏 System	Rule Switch	Disable	v	and the second se
- Oyotom	Rule Type	Trap Line	v	A plants, Nitrati
Advanced	Tow-way	Disable	∼	Delete
Firmware Update				
Load Default				
Maintain				
Events				
PEA				

Picture 6-37

6. AVD Exception Detection

Totally 8 kinds of detection items: Brightness detection, Definition, Noise, Freeze, Signal loss, Scene change, Artificial disturbance, PTZ lose control. Detailed setting should be consistent with DVR local setting. Refer to Picture 6-38.

L	ive Playb	ack R	temote Setting Local Setting Logout
C	Display	AVD	Copy Refresh Save
	Record	Channel Channel Switch	CH1 V Enable V
۲	Network	Sensitivity	3
<u>50</u>	Alarm	Detection Type	 Brightness detection Definition detection
	Device		 Noise detection Freeze detection
-	System		Signal loss detection Sene change detection
	Advanced		Artificial disturbance detection
	Firmware Update	Buzzer	PTZ lose control detection OFF
	Load Default	Latch Time	10s
	Maintain	Alarm out	■ De ■ Full Screen
	Events	Show Messag	
	PEA		
	AVD		

Picture 6-38

7. OSC Exception Detection

OSC includes two functions, i.e. legacy detection and lost detection. OSC can set up to 4 rules in a channel and each rule can be set as either legacy or lost. It can set up to 4 monitoring areas for each rule, so it can set up to 16 detection areas for each channel. Detailed setting should be consistent with DVR local setting. Refer to Picture 6-39.

Live	Playback Remo	ote Setting	Local Setting	Logout
Display				
Record	OSC Switch	Copy Enable	Refresh Save	07/10/2014 12:14:15
Network	Channel Buzzer	CH7 10s		CH7 4-1
Narm	Latch Time	10s Full Screen		2 23 3th sure of
Device	Show Message			62
System	Alarm out Rule Number	1		
Advanced	Rule Switch	Disable		
Firmware Update	Rule Type Scene	Legacy Indoor		✓ Delete
Load Default	Areas Enable	Area1	Area2	
Maintain		Area3	Area4	
Events				
PEA				
AVD				
osc				

Picture 6-39

6.3.9 Local Setting

User may set Record Path (save Live record and Playback clip file), Download Path for remote file, Snapshot Path for captured pictures, Interval for switching record files (Packaging time), and File type (H264 and AVI) shown as Picture 6-40.

_ive	Playback	Remote Setting	Local Setting	Logout
	Local Settin	a		
	Record Pa	ath D:\DVR	•••	
	Download	Path D:\DVR	•••	
	Snapshot	Path D:\DVR	•••	
	File type	264 vinterval	10 Min	
			Save)

Picture 6-40

6.3.10 Logout

Click Logout to log out and return to the login interface.

Chapter 7 Appendix

7.1 Troubleshooting

- Q: What can I do if the system does not detect the HDD?
 A: Check if the power supply system is properly connected and data cord and power cables are securely connected, and if something wrong with the HDD interface. Or you may check if your HDD is supported by referring to the specifications or descriptions.
- Q: I have changed the password but forget the new password, how can I access the system?
 A: If you forget system password, please consult with our technical personnel. We strongly suggest user to set password easy to be remembered and relatively safe. If you have safety requirement, please do not set very simply password, such as 000000.
- Q: We see abnormal video signal or even no video signal by connecting the DVR and camera together. Power supply for both devices is OK. What is wrong?
 A: Check network cable at DVR side to see if the cable is firmly connected and if it is worn out and needs to be replaced, or to check if NTSC or PAL is selected consistently.
- 4. Q: How to prevent DVR from being influenced by heat?A: The DVR needs to dissipate heat while it is running. Please place the DVR in a place with good air circulation and away from heat sources to ensure stability and life of the DVR.
- 5. Q: The remote controller of DVR doesn't work while the monitor screen is OK and panel keys are functional. Why?

A: Operate again by aiming the remote controller at the IR receiver on front panel. If it still doesn't work, please check if the batteries in the remote controller are dying. If not, check if the remote controller is broken.

- Q: I want to take out HDD from my PC and install it in DVR. Can it work?
 A: All HDDs supported by the system can be used. But remember, once DVR runs, the data on your HDD will be lost.
- 7. Q: Can I playback while recording?A: Yes. The system supports the function of playing while recording.
- 8. Q: Can I clear some records on HDD of DVR?

A: In consideration of the file security, you may not clear part of records. If you want to remove all the records, you can format HDD.

- 9. Q: Why can't I log in DVR client?
 A: Please check if the network connection settings are correct and RJ-45 port is with good contact. And check if your account and password are correctly input.
- 10. Q: Why can't I find any records during playback?A: Please check if the data line connection for HDD is OK and system time is properly adjusted. Try a few times and restart. If it still doesn't work, check if the HDD is broken.
- 11. Q: Why DVR cannot control PTZ?

A: Please check if:

- 1. PTZ in the front side is malfunctioned.
- 2. Setting, connection and installation of PTZ decoder are not correct.
- 3. PTZ setting of DVR is not correct.
- 4. Protocol of PTZ decoder does not match that of DVR.
- 5. Address of PTZ decoder does not match that of DVR.
- If many decoders are connected, the farthest side of AB line of PTZ decoder should be added 120Ω resistance to realize reflection suppression and impedance matching. Otherwise, PTZ control will be unstable.

- 12. Q: Why doesn't dynamic detection work?A: Please check if the motion detection time and motion detection regional setting are correct and if the sensitivity is set too low.
- 13. Q: Why doesn't alarm work?A: Please check if the alarm setting, alarm connection and alarm input signals are correct.
- Q: Why does buzzer keep alarming?
 A: Please check the alarm setting, check if motion detection function is enabled and object motion is detected all the time and if I/O alarm is set as Always Off. Besides, refer to corresponding HDD alarm setting.
- 15. Q: Why can't I stop recording by pressing "STOP" button or click "Stop Recording" in context menu?

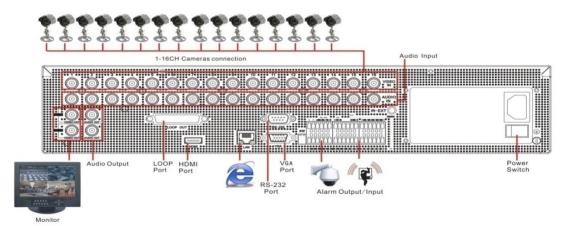
A: Pressing Stop or Stop Recording can only stop manual record. If you want to stop Scheduled recording in certain time quantum, please change the setting to No Record. To stop Startup recording, please change record mode to scheduled recording or manual recording. Then you may stop recording by the prescribed methods. And another way of stopping recording is to set channel as Off status in record setting.

7.2 Usage Maintenance

- 1. To shut down DVR, please firstly shut down the system and then turn off the power. Do not turn off the power directly or HDD data will be lost or damaged.
- 2. Please keep DVR away from heat sources or places.
- 3. Clean the internal dust regularly. Make sure the good ventilation of DVR so as to ensure the good heat dissipation.
- 4. Please do not hot plugging audio and video cables, or cables connected to ports like RS-232 or RS-485. Otherwise the ports will be damaged.
- 5. Please check the HDD cable and data cable regularly to see if they are ageing.
- 6. Please prevent the audio and video signals of DVR from being intervened by other electronic devices, and prevent the HDD from being damaged by static electricity and induced voltage.

If the network cable is frequently plugged, it is suggested to replace connecting line regularly, or the input signal may be unstable.

7.3 System Connection Diagram



7.4 Accessories (Goods in kind prevail)



□ Remote Conroller



Power Adapter (Good in kind prevail)



User Mannual



 \Box USB mouse





□ Warranty Card

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