Digital Video Recorder

User Instruction Manual

Ver: 4.7

Introduction

Welcome to use the upgrade EAVS based on the "triple play" of DVR. EAVS fs full name is Enternet - Alarm Video Server, ie, digital network alarm video server, which is based on the embedded hardware and software-based application technology, combined with advanced alarm technology and H.264 video compression technology, all-digital, networked, intelligent video surveillance alarm system.

EAVS embedded server integrates video recording and video services, CPU hard pressure mode, using a higher level of H.264 compression standard, the user can make the same image quality obtained under conditions of lower compression rate, which effectively solves the problems of alarm expansion, transmission, video compression, storage, remote control aspects of rational distribution, independent alarm video services software and WEB video services platform, easily realizes video linkage alarm, alarm video control, PTZ control, remote set query. The system uses the Linux operating system, to ensure the system stability and reliability, with a variety of network interfaces, using TCP/IP protocol, LAN, WAN remote transmission automatic warning, automatic alarm, automatic recording and other functions.

EAVS fs highly integrated features effectively solve the close tie between the alarms and video, automatic warning, alarm and video functions can be achieved in the LAN and WAN. Through this alarm video services platform, users can remotely set the alarm and video services, query and manipulate, remote query alarm events.

EAVS fs entirely English operating platform, control software and remote operating platform, powerful display control functions and a simple and intuitive user interface and the remote host, make the system configuration and operating procedures more straightforward, at the same time the company carried on the operator interface beautification and hierarchical segmentation, so that operation becomes easy.

High level of integration reduces the maximum extent of a single modular variety of devices, which reduces the linkage module and other external devices, and greatly reduces the cost of system integration. In the process of the formation of the system, due to relatively high integration, labor costs, supplies, cost of intermediate devices are greatly reduced, making the EAVS system more economical.

EAVS 's birth has opened alarm remote visualization prelude to the era, which effectively solves the problem of false positives field detector occurrence, breaking the traditional sense of the concept of on-site alarm, allowing users to really experience security and reliability of alarm for the first time. It is an important milestone of alarm into digital and remote visualization, alarm and video surveillance is a powerful combination of proven, intelligent alarm monitoring is an important direction for future development, but also the establishment of large-scale technology base alarm monitoring system. With the large-scale development of intelligent alarm monitoring for urgent needs, EAVS digital alarm surveillance video server plays a greatrole in promoting. The set up of EAVS digital video platform builds a more efficient implementation of the intelligent platform for security and peace which provides the strongest protection for the future.

To facilitate this product can better serve you, we recommend that you carefully read the user manual. Valuable suggestions and comments are welcomed in the course of using this product. We always provide you with careful and thoughtful service. If you have any questions please contact us.

We will not notice if there is a change of product performance, if you want to know the latest features, please contact with the relevant business.

User Instruction Manual

Contents

Introduction	
Chapter 1 Function and Features	3
Chapter 2 Specifications and interface definitions	5
2.1 Attentions.	5
2.2 Open Package and Accessories Inspection	5
2.3 Pre Installation Instructions	6
2.4 Performance Parameters	8
2.5 Connection Diagram	9
2.6 System Connection Diagram.	10
2.7 Mouse Operation	11
Chapter 3 Host Operation	12
3.1 Menu of Host System	12
3.2 System of Settings and Operation	14
3.2.1 User Log in	
3.2.1.1 Host start up	
3.2.1.2 System Login	
3.2.1.3 Booting	
3.3 Menu Operations	
3.3.1 System Configuration	
3.3.1.1 Basic Setting	
3.3.1.2 User Manage	
3.3.1.3 Factory reset	
3.3.1.4 Maintenance	
3.3.1.5 Upgrade	
3.3.1.6 Installation config	
3.3.2 Set video	
3.3.2.1 Schedule	
3.3.2.2 PTZ Setting	
3.3.2.3 Timing Color	
3.3.2.4 Poll Setting	
3.3.3 Set Alarm.	
3.3.3.1.1 System	
3.3.3.1.2 Phone	
3.3.3.1.3 Password	
3.3.3.1.4 GSM Module	
3.3.3.1.5 Partition.	
3.3.3.1.6 Wireless siren.	
3.3.3.2 Timing arm/disarm.	
3.3.3.1Motion	
3.3.3.2Video Loss	
3.3.3.3.3 Video Blind	
3.3.3.3.4 HDD Error	
3.3.4 Set Network	
3.3.4.1.1 Address	
3.3.4.1.2Port	
3.3.4.1.2Poit	
3.3.4.2.1 PPPoE	
3.3.4.2.2 DDNS	
3.3.4.2.2 DDNS	
3.3.4.2.3 Email	
•	
3.3.4.3.1 Server	27

3.3.4.3.2 F1P	. 28
3.3.4.4 IP Filter	28
3.3.5 Access	28
3.3.6 HDD	
3.3.7 Logout	
3.3.8 Restart.	
3.3.9 Shutdown.	
3.3.10 Version	
3.4 Video Device	
3.4.1 Analog Channel	
3.4.1.1 Encode	
3.4.1.2 OSD	30
3.4.1.3 Mosaic	
3.4.2 Digit Channel Setting	.30
3.4.2.1Channel Set	.30
3.4.2.2 IPC Search	.31
3.4.2.3 IPC Parameter.	
3.4.2.3.1 Network Setting.	31
3.4.2.3.2 Encode	
3.4.2.3.3 Device info	
3.4.3 Video Channel Query	
3.5 Zone	
3.5.1 Zone Setting	
3.5.2 Zone Linkage	
3.5.2.1 PTZ Linkage	
3.5.2.1.1Recording Linkage	33
3.5.2.1.2 Capture Linkage	
3.5.2.2 Select Related Channel	
3.5.2.3 Smart DeviceLinkage	
3.5.3 Related Zone	
3.6 Remote Controller	
3.6.1 Remote Setting	
3.7 PTZ Control	34
3.8 Color Setting	35
3.9 Log Query	35
3.10 System status information	.35
3.11 Smart Home	
3.11.1 Smart Home Setting	
3.11.1.1 Area	
3.11.1.2 Area Setting.	
3.11.1.3 Device Setting.	
3.11.1.4 Timer Setting.	
3.11.1.4 Scene	
3.11.1.4 Scene Setting.	
3.11.2 Smart Home Operation.	
Appendix1, FAQ	
Appendix2, Maintenance	.41
Appendix3、Time reckoning for HDD recording	41

1.Basic Functions

▲It is based on an Embedded Linux operation system, which supports browsing by the windows IE explorer and mobile phone.

▲It uses H.264 hardware compression technology with high compression ratio and flexible handling.

▲It supports at most 16 channels video input,1 channel BNC video output,1 channel VGA video output and 1 channel HDMI output.

▲It supports RS-485 interface, which may control PTZ and reliable multiple decoding protocol extension.

2. Compression Functions

▲Video compression uses H.264 compression algorithm, which may realize independent hardware compression with CIF resolution of 25 frames per second. It supports both VBR and variable frame rate. The coded stream of video image can be set during the process of setting the quality of video image.

▲It supports at most 16 channels audio/video signals. Each channel of audio/video signal is compressed in real time by independent hardware to ensure the stable synchronization of sound and image.

▲It supports QCIF/CIF/D1/HD1/960H/720P/1080P resolutions.

3. Storage and Backup Functions

- ▲There are 2 SATA harddisk interface and all of them support TB-level harddisk.
- ▲Backup through USB port like flash disk or portable hard disk
- ▲As for client computers, the backup process can be done through downloading the files from the hard disk.
- ▲It adopts the hibernation treatment for the non-working hard disk, which favors the heat dissipation and power consumption reduction, and consequently prolong the HDD service life.
- ▲Files on the hard disk include overlaid loop records and non-loop records.
- ▲ The stored data adopt special formatto avoid the data tampering and ensure the data security.

4. Network Function

- ▲It supports an 10M/100M/1000M adaptive Ethernetinterface;
- ▲It supports TCP/IP,DHCP,DDNS,PPPOE,3G and other network protocols;
- ▲It can set parameters through WEBpage, view real-timevideo and audio signals, and check the running status of the equipment.
- ▲It can control the rotation of PTZ and relevant parameters of camera like aperture size, focal I length, etc.
- ▲Remote alarm and system log view.
- ▲ Video search and real time playback.
- ▲ Powerful networking functions with various linking methods.
- ▲ Remote internet access supports multi-screen display.

5. Video Playback

- ▲Multiplex:each channel canplay real-time video independently and realize playback and search of channel 1 to 4 simultaneously.
- ▲Various recording modes: manual mode, alarm and linkage, dynamic detection, and video mask. All of them have pre-recording functions.
- ▲Quick searching of video files and systematic searching of video types.
- ▲It displays the exact time of incident during playing the video.
- ▲ Search the log files of hard disk video through network.

6.Real -time Monitoring

- ▲It supports PAL/NTSC /IP Camera video signal input.
- ▲System screen has high definition and exquisite images.
- ▲The channel screen displays the status of channels, such as video, dynamic detection, video loss, video mask, etc.
- ▲ Display modes include signal screen display, multi-screen display, and multi-channel cycle display.
- ▲The brightness, contracts, saturation, and color of the preview images are adjustable.
- ▲The names of cameras can be added freely on each camera displayed screen.
- ▲It has HDMI and VGA output interface, which can realize monitoring functions through monitors or PC monitors; supports HDMI HD output interface
- ▲It can view the local or remote system logs.

7. Sound Functions

- ▲It supports up to 16 linear audio input, 1 channel audio output, 1 MIC input, a headphone output
- ▲It has the functions of audio and video synchronous input. The sound is very clear and smooth and without any noise.
- ▲It can monitor the image and sound simultaneously. It supports the video camera with audio function.
- ▲Each channel of audio and video can be stored synchronously.
- ▲Audio and video can be played synchronously.

8. Alarm Functions

- ▲ It has 32 wireless inputs, 64 bus zones, 8 wired zones
- ▲ It may connect the infrared or smoke detection alarm detectors as alarmin put devices.
- ▲ It has the recording function of the alarms and linkage. A detector can be kinked with one or more video camera; while a video camera can be linked with one or more detectors. As soon as the detectors are triggered, the associated video camera will start recording, and the siren and flashing light will also be started at the same time.
- ▲ The alarm input and output interfaces have protective circuits to avoid the damage of main host devices.
- ▲ It supports 8 wired or wireless keyboards and 8 wireless remote control devices.
- ▲ There are 2 alarm CMS telephones and 4 personal alarm telephones.
- ▲ It supports PC downloading, IE downloading, and telephone remote controlprogramming.
- ▲ Contact ID protocol and MEIAN-II bus protocol.
- ▲ The built-in electronic clock can realize 4 groups arming and disarming per day.
- ▲ It can internally and externally connect alarm sound to make alarm linkage output.
- ▲ Automatic learning code pattern recognition of wireless sensor □ wireless remote control device
- ▲ Automatically monitor the sound on site.
- ▲ Give alarms in case of phone disconnection.
- ▲Make report in case of AC power failure, and malfunction of wireless or wired sensor.
- ▲It may set the automatic self-check time and report the status of the main host.

2.1 Attentions

▲Power supply

The power supply of this device is DC 15V/3A or 12V/3A according to the model of the product. Please use the power provided by our company. If you do not use this device for a long time, please unplug the power cord from the socket.

▲Memory device:

It is recommended to use Seagate 3.5-inch HDD special for DVR.

▲Safe operation:

The device is indoor equipment. Do not place it in the damp and dusty environment in order to avoid the danger of short circuit and electric shock. In case that any solid or liquid enters into the case, please switch off the power immediately. The device cannot be reused until it is checked by the special technical personnel. If any problem occurs, please contact special technical personnel or supplier. Do not repair it by yourself.

▲Installation Position:

Choose proper installation position to make air flow freely around the devices o as to avoid overheat of the device. Do not install the device near the heat sources like radiator and ventilating duct, or the places subject to sunshine, dust, moisture, intense magnetic fields and mechanical vibration or impact. The device should stay away from large metal objects, TV, computer, etc, or the transmitting or receiving distance will shorter because of signal interference; the device should be installed to the detectors as close as possible; in the premise of hidden, the antenna should be put out and put up;

▲Copyright protection:

During video recording or monitoring, pleasedo not infringe the related rights of the third parties. Otherwise, you have to be at your own risk. Without the explicit approvals of our company or authorized units, any changes or modifications on the devices are not allowed as it may damage the device and bring inconvenience to the users. Otherwise, you will lose the right of after-sale service. Zone number and tail resistance should refer to the real product

2.2 Open Package and Accessories Inspection

After opening the package, please check if there are any deformations or other kinds of damages to the device and accessories. If any ,please do not use and contact with your supplier, at the same time please check the integrity of all the accessories of the device. The complete configuration list of the product is shown as below:

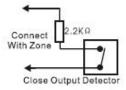
- User manual
- Wireless deviceantenna/GSM antenna
- Connecting terminals
- Resistance(2.2K)
- · Power adaptor
- Screws
- CD Disk
- · Remote controller

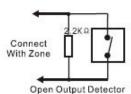
2.3 Pre-installation Instruction

1 Alarm Part

1)Zone: Ahost device contains a number of different zones, which indicates that the system can be connected with many independent detectors. Each zone can be connected with different types of sensors and set as a certain zone through programming, so as to make operation more convenient and alarms more reliable.

- 2)Wireless zone: It is a zone which is wireless connected with the host device by a certain emissive frequency and specified encoded mode.
- 3)Wired zone: It is a zone which is connected with the host device through cables. Generally all the wired zones use conventional four-wire detectors. The detectors output the switching signals. Therefore the wired zone use 2.2k.line end resistance to monitor. If the system detects there is 2.2k. Resistance on the circuit, it means the system is in normal condition; If the system detects the resistance on the circuit is zero(short circuit) or infinite(circuit break), it will make alarms. As the output modes of detectors are different, the connection modes of resistance are also different. However, there is a principle: the loop resistance should be 2.2k. and the resistance should be connected at the end of the detector. The general response speed of wired zone is 300 milliseconds to 500 milliseconds.





- 4) Disabled zone: The zone is not in use.
- 5) Delay zone: It is used for the main entry/exitroute, e.g. front entrance and main entrance. The area will be effective when the out delay after arming finishes. When the zone is triggered, otherwise it will give a larms. The control device will buzz as soon as the time delay starts (as a cue signal of disarming the system). It is effective in away arming conditions.
- 6) Perimeter zone: It is used for external door, windows and guardrails. If they are damaged, the alarms will occur. The zone has no time delay function. It is effective in away arming conditions.
- 7) Burglar alarm zone: It is not an emergency zone and not at the entry or the exit. It is mainly used for internal defense. In case of detecting invasion, the alarms will be activated. The area has no time delay function. It is effective in away arming conditions.
- 8) 24-hour zone refers to the zone in which the emergency buttons are used for personal emergencies or various emergency events. The zone is not controlled by arming or disarming.
- 9)Emergency zone: In this zone, the emergency buttons are used for emergency alarms of banks, jewelry counters (generally without sound), and bedside (generally with sound). It can define if the siren works or not on site. The alarm information can be reported to the central station during the process. The area is not controlled by arming or disarming.
- 10) Fire alarm zone: It is used for the 24-hour monitoring of smoke detectors and heat detectors. When the area is triggered, the fire alarm will be made. The siren will make sound on site and alarm situation will be reported to the central station at the same time. The zone is not controlled by arming or disarming.
- 11) Away delay: It refers to a certain period after system arming, in which the system will not make alarms if the zones have time delay functions. After the time delay finishes, these zone start working.
- 12)Entry delay: In case the zone has the time delay function, the armed system will not make alarm immediately and allow the operator to disarm the system within the delay period. If the system is not disarmed when the time delay finishes, the alarm will be made.
- 13)Alarm output: Each host device may output 12VDC voltage to the siren as the local alarm. Note: the output current should not be exceeded 500mA, otherwise, the host device may not work properly.

- 14)Arm/disarm:It is an instruction for the alarm host controller to set arming and disarming. The alarm host will take relevant actions in accordance with the received instruction.
- 15) Away arming: Set all the detectors in the alarm status.
- 16) Home arming: It is also called stay arming. While the host device is in the state of alert, by the artificial setting, some functions of the detectors may be enabled and other functions may be disabled. It not only has effective safety functions but also allows people to move freely in the alarming space.
- 17)Self-learning code: Itrefers to the setting process of establishing communication between wireless detectors and alarm host devices. Inother words, It means self-learning automatic code registration or inputting the code manually by the keyboard between wireless detectors, remote control device and wireless alarm host. Each zone or remote control device may perform code registration or elimination respectively.
- 18) Remote control: Dialup remotely through telephone. After the password verification, it can realize remote arming and disarming, indoor movement monitoring, activating the high pitched siren, electric switch control, remote restoring the factory defaults, and other operations.
- 19)ID:To distinguish different detectors or monitoring host, each detector or monitoring host has different IDcode(address coding). As the unique mark, ID code has been preset before the detectors or monitoring host leave the factory.
- 20)Admin password/User password: The Admin password refers to the password set by system administrator for host system; while the user password refers to the password set by users in daily using process to perform arming, disarming, remote control, and other operations. The main purpose of setting password is to ensure the safety of the system.

2. Video monitoring type

1)Motion detection:It means that the system is capable of automatically taking proper actions in respond to the changes of the screen status, e.g. someone is passing or the lenses are moved. It can set arming and disarming time, detection sensitivity, and the rotation of camera to its proper preset position.

2)Mask setting: As for some important department or some fields related to privacy. We may use mask setting to avoid displaying these fields and ensure the security of the privacy.

3)UPNP:(Universal Plug and Play), it is a common name for a group of protocols. In simple words, UPNP is equal to automatic port mapping.

4)DDNS: DDNS is to map user's dynamic IP address to a fixed domain name service. When user is connecting to the network, the client program will transfer the dynamic IP address of the host device to the server program on the ISP server by means of information transfer. And the server program will be responsible for providing DNS services and realizing dynamic DNS. In other words, dynamic DNS will capture user's ever-changing IP address and match it with the domain name, and then other network users may communicate with each other by means of domain name.

5)FTP: It is used for the two-way transmission of control files on the internet. Users may use FTP to connect their own devices with all the servers using FTP protocols in the world and access the serverto obtain large amount of programs and information. The main function of FTP to connect their own devices with all the server using FTP protocols in the world and access the servers to obtain large amount of programs and information. The main function of FTP is to enable users to connect a remote computer, on which FTP server program is running, to check what kind of files there are on the remote computer. And then copy those files from the remote servers to the local computer, or send the files on the local computer to the remote servers.

- 3. Icon display (Some model number have this feature)
 - 1. Video recorder (when video recording, the icon will bright)
- 2. Video playback(when video playback, the icon will bright)
- 3. Switch VGA to monitor (when switch VAG to monitor, the icon will bright)
- 4. Connectivity(When link to the internet success, the icon will bright)
 - 5. Product logo(bright as power on status)
- 6. HDD status(HDD1 connected/HDD2 connected/HDD error status keep bright)
 - 7. (1) in normal status, display the system time
- (2) when occurs zone faulty: FAUzone No. Example: when zone 3 faulty will display FAU 3.

When multiple zones faulty, it will display the zone No. by turns. (3) when alarms display: ALA zone No.

Example: when zone 4 alarms, it willdisplay ALA04; when multiple zones alarm, it willdisplay the alarm zones by turn.

- (4) power off display OFF
- (5) exit from delay time display A time, if exit delay time is 200 seconds. Display A 200.
- (1) when recording video in normal status, the compass rotates orderly.
 - (2) when recording video in abnormal status, the compass overall flashing.
- 9, video display screen, 1 channel, 4 channel, 9 channel.
- 10, home alarm (inhome alarm status, light on)
- 11, away alarm(in away alarm status, light on)
- 12, disarm (in disarm status, light on)
- 13, telephone line faulty (intelephone line faulty, light on)
- 14, alarm indication (when alarms, the light flashes)
- 15, back up batteries voltage(on in batteries voltage. Offin battery normal)
- 16, 3G connectivity status (in 3G status on)



15

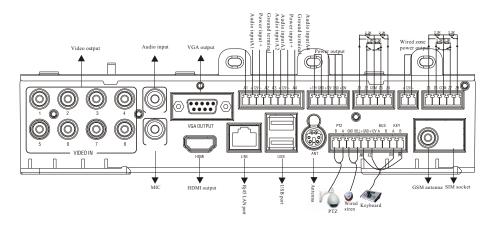
16

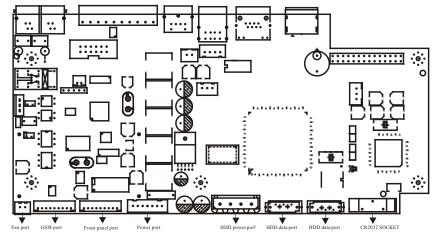


2. 4Performance parameters

Product Name		Digital VideoRecorder	
Operating system		Embedded Linux	
User I	nterface	16 bit truecolor graphical menu operation interface support USB mouse operation with menunotes	
	Video input	4/8/16 channel video input: BNC 1.0Vp-p,impedance:7594/8/16 channel network video input	
	Audio input	4/8/16 channel audio input: PS/2	
	Audio output	1channel audio output: BNC1.0V p-p, impedance600 Ω	
Peripheral interface	Video output	1channel VGA output: Standard 15 core VGA port 1channel HDMI output: HDMI port	
interrace	Alarm input	4/8/16 channel: switch signal, 24/32/56 channel: wireless devices, 8 remote controller	
	Serial interface	Support 1 Rs232 port Support 1 Rs485 port	
	Network interface	RJ45, 10M/100M/1000Madaptive network interface	
	HDD interface	2 SATA (TB) HDD	
	USB port	1 USB2.0+1 USB1.1	
	Monitor resolution	1 0 2 4 x 7 6 8 / 6 0 H z , 1 2 8 0 x 7 2 0 / 6 0 H z , 1280x1024/60Hz. 1600x1200/60Hz, 1920x720p/60Hz, 1920x1080p/60Hz	
	Playback resolution	1 0 2 4 x 7 6 8 / 6 0 H z , 1 2 8 0 x 7 2 0 / 6 0 H z , 1280x1024/60Hz, 1600x1200/60Hz, 1920x720p/60Hz, 1920x1080p/60Hz	
	Video coding standard	H.264, PAL/NTSC	
Audio / video parameter	Video outputrate	960H/720P/1080P adjustable	
	Audio coding standard	ADPCM, sampling rate,, 8khz, 8bit	
	Audio output rate	24Kbps	
	AC input	AC:110~240V	
Others	DC input	DC: 12V	
	Working temperature	-1060	

2.5 EAVS-2504/8 Connection Diagram





Power Supply

- * Please connect all the wired cable before power on. Please do not connect the wired cable on the status of power on.
- * Used 12V DC sealed lead acid battery, and exchange the battery per 3 to 5 years.
- * Keyboard, auxiliary power, siren ect total power supply demand can not exceed to the maximum power of the host.
- * The battery maximum charging current is 350mA

2.6 System Connection Diagram



EAVS Series digital video network alarm server:

You can connect 8 wired zones, maximum support 8 remote control, 32 wireless zones; It supports contact ID protocol, alarminformation can be uploaded to the CMS,

- It can connect 4 video signals, 4 audio signals. Video can be output with a standard 15-pin VGA port, HDMI interface output can also be used.;
- It supports TCP/IP protocol, can be remotely controlled by the client CMS, alarm
- video can also be uploaded to the client CMS platform

EAVS series product is simple to operate, easy to use and fully compatible with alarm,

video, network, performance is very powerful, it is a network alarm video server of high performance cost ratio on the markettoday.



In addition to remote control operation, the user can operate menu functions with the mouse. Insert the mouse with USB interface into the mouse interface of the machine panel

Function instruction:

	Enter channel shortcut setting: move cursor to channel window, click the right mouse button on the real-time preview screen
Click the right	Exit channel shortcut setting: under channel shortcut setting mode, click right button to exit
mouse button	Exit zoom in: in the playback screen or video preview zoom in mode, click the right mouse buttonto exit, Exit motion detection area and mosaic area: click the right mouse button to exit
	left click the icon of function menu option to enter the menu setting page.
Click the left mouse button	In the real-time monitormulti-screen or playback multi-screen, double click the leftmouse button to switch single channel screen, then double click the left mouse button again, to return to monitoror playback multi-screen
	If there are many options in the option box, left click the mouse button to pop up the drop-down menu.
	In the playback screen, click the left mouse button to fast forward, fast reverse, slow play by frame, play, exit
Click the left or right mouse button	Click the leftor right mouse button in the input box to activate soft keyboard. Click the right mouse button to switch Chineseand English typewriting of the soft keyboard, Clic the numbers, symbols and uppercase and lowercase letters on the soft keyboard to input
	To input numbers, firstly left click the number box to pop up number soft button, then switch the softkeyboard to number input mode, left click the mouse to select the corresponding number, click "Confirm" key to exit number soft keyboard.
Mouse movement	In the setting screen of Mosaic area, it can set the mask video area by left clicking and dragging the moving box. In the playback or preview single full screen mode, it can set zoom in area by left clicking and dragging the moving box
	In the setting screen of motion detection, it can set the area of dynamic detection by left clicking and dragging the moving box.

Menu of Host System



	The quick button to enter into main menu
	Switch to full screen mode
	Single screen preview, continuous clickthis button to switch single screen preview in cycle
	4 screen preview, continuous click this button to switch 4 screen preview in cycle
	6 screen preview, continuous click this button to switch 6 screen preview in cycle
	8 screen preview, continuous click this button to switch 8 screen preview in cycle
	9 screen preview, continuous click this button to switch 9 screen preview in cycle
	16 screen preview, continuous click this button to switch 16 screen preview in cycle
	Enabled polling mode, disabled polling mode
KAN	Switch to smarthome control mode
•	Switch to video preview mode
	Switch to recording playback mode
(A)	Away arm button, please note that if the selected partition is target partiton
	Home arm button, please note that if the selected partition is target partition
\otimes	Disarm button, please note that if the selected partition is target partition
②	Disabled siren tone button

<u>@</u>	Channel setting button
*	Zone setting button
Ø	Remote controller setting button
	PTZ operation button
**	Channel color setting button
	Log inquery button
(i)	Device status information inquery button
臣	This icon indicates that the CMS platform is not connected
聖	This icon indicates that the CMS platform is connected via Internet
<u> </u>	This icon indicates that the CMS platform is connected via GPRS
₽	User logout button
P	Channel zoom in button
	Channel manual recording button
ط»	Channel audio ON/OFF button
敬	Channel parameter setting button

3.2 System Setting and operation

3.2.1 user log in

3.2.1.1 start up

Connect the power adapter to the socket on the rear panel of the device. After start up, the power light [pow] will be illuminated. It will display 4/9/16 channels monitoring video on the monitor screen. If power upscheduled recording is enabled. Or the start-up time is in the time range of timely video, system will automatically start recording and the system works in normal condition.

If the host device is on, while on HDD is installed or HDD is installed but not detected, it will display(not connected storage devices) on the video preview screen.

3.2.1.2 system log in

The default username is: admin, no password required. User may directlylog in the main menu. Based on the greater safety considerations, pleaseenter into [system]/[user setting] to change the password. After the host poweron, press the lower-left bottom [] button. Enter into the user log in interface. As photo shows.

User name: input admin in the input box PWD: input the administrator password (default setting is blank)

Note: the following is to use mouse to operate

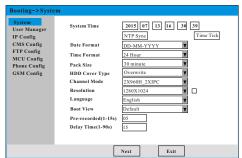
User Login User admin Password Exit Login

3.2.1.3 Booting setting

After login successfully, it will pop up this dialog box, as the right figure



Click the upper right corner "Booting" button, enter into guide setting interface, see the right figure



3.3 Menu Operations

Main menu include『System Configuration』、『Set Video』、『Set Alarm』、『Set Network』、『Access』、『HDD』、『Logout』、『Restart』、『Shutdown』和『Version』

see below picutre:

- 1) All of the following sub-menus settings, must take effect after it is confirmed to save, or else the setting is ineffective
- 2)The legend "m" means selected, unfilled means not selected, "X" means not be selectable



3.3.1System Configuration

Move the cursor to System Configuration, left click the mouse to entersystem configuration interface, include basic setting, user manage, factory reset, maintainance, upgrade, installation config.

3.3.1.1 Basic setting

Move the cursor to Basic Setting, left click the mouse to enter the interface as below:

System language: Chinese and English is optional; Video format: PAL, NTSC, system default is PAL Resolution:VGA(1024*768)/VGA(1280*1024) /1440*900/1920*1080;

Channel Mode:

2504:4X960H/2X960H_2XIPC/4XIPC/ 2XAHD_2XIPC/4XAHD 2508:8XD1/4XD1_4XIPC/8XIPC

2038:8X960H/4X960H_4XIPC/8XIPC/4XAHD_4X

2116:16XD1/16XD1 16XIPC/16XIPC

System Time: Change the current date and time of the device (Note: if modified system is earlier than the current time will erase the recording)

Date Format: Choose desired date format, including YY-MM-DD and DD-MM-YY

Time Format: Choose desired time format, including e24 hours format and 12 hours format

Pack Size: define the video length time as one package, divided into 15

minutes, 30 minutes, 45 minutes, 60 minutes

HDD Cover Type:overwrite or no overwrite for options, No overwrite conditions: the current working HDD is overwriting, or current working HDD just overwrote. And the backup HDD also overwrote. Then it will stop recording. Overwrite conditions: the current working HDD just overwrote, and the backup HDD also overwrote. It will recycle to overwrite the earliest video file.

Pre-recorded: recording time before alarm occures.

Delay time: The duration of alarm recording



System

Logout

Restart

Shutdown Version

Set Video

Set Alarm

Set Network Access HDD The system time can not free to change, otherwise it will cause check the video failed. If change the system time before the current time, all the video file will be delete after the new Note time. Please do not free to change the system time.

对时设置

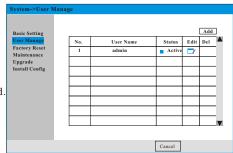
在本设置项下可以设置自动网络对时,时区选择、对时服务器、端口号以及对时间隔

3.3.1.2 User Manage

Move the cursor to User Manage, click the left mouse button to enter the user interface:

- 1, Click "Add" button to add new user;
- 2. Click " 2" button to edituser
- 3. Click Status can change the user's status

Note: admin superuser's status cannot be changed.



Add new user

Move the cursorto "Add" button, click the left mouse button to enter adduser interface:

- 1. Type username, note that the user name can not be exist already, or else cause add failed.
- 2. Type new user password and verify password, type the same password in both text boxes.
- 3. Switch user status to 'Active', if status is 'Disable', and the new user is not available
- 4. Assign permissions to new users according to the actual situation.
- 5. Click 'Save' to finish the settings.



- 1.The Wax名和密码设置最大为级位对is 16 digits.
- 2.20ml只有lAdmine用 dai能进和e普通用的比较级建设多数规则和sion.

Modify user info

Move the cursor to ', click the left mouse button to enter user edit interface:

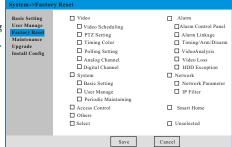
- 1. Type the modified user name, note that the user name cannot be exist already.
- 2. Type newuser password and verify password, type the same password in both textboxes.
- 3. Modify user status.
- 4. Assgin permissions again.
- 5. Click 'Save' to finish the settings.



- 1. The Marilength compertand mass word is 16 digits.
- 2.0元以外中期刑部所到 即以修授所明整通知产现股删除普通用户。

3.3.1.3 Factory Reset

Restore to the factory default according to the demand, if activate this function, the related setting will restore to the default factory. Please be careful.



3.3.1.4 Maintenance

Move the cursor to Maintenance, click the left mouse button to enter Maintenance interface.

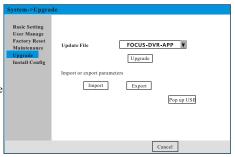
Setup the system of automatic restart time and date, can multi-select. If setup, system will restart every week as your demand.



3.3.1.5 Upgrade

Move the cursor to Upgrade, click the left mouse button to enter Upgrade interface.

System upgrade: please store the upgrade file save to the root of the U disk. Insert the U disk into the USB 2.0 slot. Press the [Upgrade] to upgrade the system. It will show the progress dialog.





In the process of the upgrading, please do not disconnect the power, the system will reboot after finishing the upgrade. (normally need 2-3 minutes to complete). In addition, In upgrading the "FOCUS-DVR-APP" file, The system will automatically restart after verifying the correctness Note of the upgrade file, and then complete the upgrade in the background, so please do not disconnect the power and Udisk.

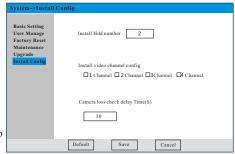
Restore and load parameters

- 1. Click 'Pop up USB' button, back up the system parameters to the U disk. After backup has completed, please besure to click 'Exit U disk' first, then pull out U disk safely. Otherwise maybe cause backup failed!
- 2. Click 'Import' button, from the Udisk loading system parameters, afterload has completed, the system will automatically restart.

3.3.1.6 Install Config

Move the cursor to Install Config, click the left mouse button to enter Install Config interface.

- 1. Install Hdd number: theactual number of Hdd inside the devicewhen installation. When the system detect the number of Hdd is less than the actual number of Hddwhen installation, and also enable Hdd lose function, then the system will cause Hdd loss alarm.
- 2. Install video channel: the actual access video channel to device when installation.



When the device ispowered up, the videosignal is detected. When enabled this channel, but no video input signal was detected, and also enabled videoloss function, then the system will cause videoloss alarm. This feature is a complement function to the videoloss alarm.

3. Camera loss check delayTime: indicatetime interval from thesystem startup to thesystem start to detect videochannel.

3.3.2 Video

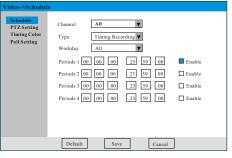
Move the cursor to Video, click the leftmouse button to enter Video interface, include Schedule, PTZ Setting, Timing Color, Poll Setting

3.3.2.1 Schedule

Move the cursor to Schedule, click the left mouse button to enter Schedule interface.

Note: the default is open Schedule interface when enter Video setting

1. Type: indicate timing recording and alarm recording 2. Timing setting: the user can set record channel, workday and periods as per requirement. Each workday & each channel include 4 periods, after finish setting, must select Enable, or else it will not work in



A

In the timing recording periods, only one video type is effective, if you set as timing recording, in this time period manual recording is ineffective. The priority rating: alarm recording-timing recording-manual recording

3.3.2.2 PTZ Setting

this time period.

Move the cursor to PTZ Setting, click the left mouse button to enter PTZ Setting interface:

First to setup the address of dome. Then make sure A line and B line of dome are correctly connected to the Aport and B port on the device.

 $Channel: Choose \ the \ access \ channel \ of \ dome \ camera.$

Protocol: Choose the protocol in accordance with the type of dome.(example: PELCO-D)

Address:Set dome address, the default value is 01 (note: the address should be same as the address of dome, otherwise the dome can not be controlled)

Video->PTZ Set	ting			
Schedule PZ Z Setting Timing Color Poll Setting	Channel PTZ Protocol Address Baud Rate Data Bit Stop Bit Parity Bit Rate('/s)	Channel		
	Default	Save	Cancel	

Baud Rate: Choose proper baud rate for corresponding dome. It may control PTZ and camera in corresponding channel. The default value is 9600;

Data Bit: default is 8; Stop Bit:default is 1; Parity Bit:default is No; Rate:default is 01.

3.3.2.3 Timing Color

Move the cursor to Timing Color, click the left mouse button to enter Timing color interface:

Timing Color: set channel color and time period

Schedule PTZ-Setting Timing Color Time Period Periods 1 Y Enable Time Config Start Time 00 00 00 06 00 00 Brightness Contrast Saturation Chromaticity Select Channel 1 2 3 4 Default Save Cancel

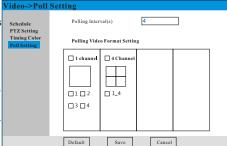
3.3.2.4 Poll Setting

Move the cursor to Poll Setting, click the left mouse button to enter Poll Setting interface:

Polling interval: display the intervals of selected channel in turn(only if the

channel is selected, the function can be effective) Video->Poll Setting

- 1 Channel: the host monitoring screen displays single channel in turn under the conditions of no operation or running, the channels can be multiply chosen.
- 4 Channel: the host monitoring screen displays 4 channels in turn under the conditions of no operation or running. The channels can be multiply chosen



- 8 Channel: the host monitoring screen displays all the channels (8 CH host)
- 9 Channel: the host monitoring screen display 1-9 channels (16 CH host)
- 16 Channel: the host monitoring screen display all the channels (16 CH host)

3 3 3 Alarm

Move the cursor to Alarm, click the left mouse button to enter Alarm interface, include Alarm Panel (System, Phone, Password, GSM Module, Partition, Wireless Siren), Timing Arm, Alarm(Motion, Video Loss, Video Blind, HDD Error) 3 options.

Move the cursor to Alarm Panel, click the left mouse button to enter Alarm Panel,

Move the cursor to Alarm Panel, click the left mouse button to enter Alarm Panel setting, include System, Phone, Password, GSM Module, Partition, Wireless Siren 6 options.

3.3.3.1.1 System

Entry Delay: it refers to the period(001-255 seconds) in which the host device will delay the alarm when the alarm is triggered. The default setting is 10s

ecurity Setting->Alarm Panel->System Alarm Panel Entry Delay(0-255s) Phone Exit Delay(0-255s) 10 Siren Time(0-30m) Password Phone Line Loss Partition Wireless Sire Timing Arm Ring Times(0-15) Alarm AC Off Time(0-999m) Arm/Disarm Report Arm/Disarm Tone Alarm Limits ☐ Force Arm Emergency Alarm Door Open Detect Always Upload To CMS Cancel

Exit Delay: it refers to the period(001-255 seconds) in which allows users to

exit the zone before alarming is activated after setting arm manually or by remote controller. The default setting is 10s Siren time: the siren ring time in alarming (the default is 5 minutes). It is recommended not to set over 15 minutes.

Phone line test: it refers to the time interval of checking telephone line lost, the default setting is 0(disable)

Detector lost test time: it refers to the time interval of detector loss or wireless

detector battery voltage.(the default is disabled)



Ring times: userremote control the host device through the phone call. Dialing the host device telephone No. the No of host device off-hook ringings. It can set 0-99, setup 00 to disable theremote phone control operation functions (default factory setting is 7 times).

AC OffTime: AC loss inspection, 0 is default setting (disable);

Arm/Disarm Tone: when arm/disarm the system, if the device will sound or not for prompting.

Arm/Disarm report: enable or disable report arm/disarm report to CMS, default setting is disable.

Force Arm: when zone occurs error, enforce the alarm accessories to be arm status.

Alarm Limits:if choose the alarm limits, when the one zone occurs alarm exceed to 3 times at a time. The host system assumes that problem as false alarm. It will not report the alarm information to CMS. Default is disable.

Emergency Alarm:theon-site siren if alarm or not in emergency situation. Defaultsetting is disable. Door Open Detect: check if the door contact is open, the default is disabled.

Always Upload To CMS: the host device normally report the alarm information to the CMS through the TCP/IP, if network faulty or uploaded failed, the host device will upload through the GSM way. If choose this option, the host device surely complete the upload operations through the network and GSM in every situation.

3.3.3.1.2 Phone

Move the cursor to Phone, click the left mouse button to enter Phone interface:

Telephone Alarm Center

Telephone No.:When you set the CMS, need corresponding user ID at the sametime. Please do not set the user voice telephone No as the CMS No.

User No.: Theuser Number is the identification code in CMS setting;

Dial-up times: When dialed to the CMS No. failed, The host device can dial to the CMS No again and again. Default setting is 5 times.

Center Test(H): the communication inspection time

interval between the host and CMS, when in this time period, CMS not receive the communication signal from the host, the host/CMS will display communication failure.(default 00 is disabled)

Line preference: when alarm trigger, the user canchoose which line send alarm infoto CMS in priority GSM and telephone line are optional (the default setting is GSM)

User Phone Setting

Voicephone: It can set 4 user voicephone No, which all receiving alarms by land line/mobile phone way. Most can input 15 digital.

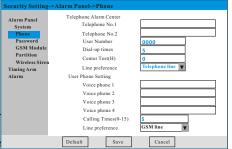
Calling Times: when user receive the alarm phone failed in several times, it will dial for certain times. default setting is 5 times. If exceed 5 times, it will stop to dial.

Line preference: when alarm trigger, the user can choose which line send alarm infoto CMS in priority GSM and telephone line are optional (the default setting is GSM)

Activate Alarm And Receiving Alarm

①Effectiveness of alarmtrigger

The burglar zones, perimeter zones, delay zones are controlled by the situation of away arm, stay arm, and disarm. All of the other zones are in 24 hours effectiveness of alarm status. As for burglar zones, perimeter zones, and delay zones, the alarm will be given after the set delay time finishes; while for other types of alarms, it will dial up and activate alarm immediately.



⁽²⁾Receiving alarms of CMS

The host device sends alarm messages with ADEMCO CONTACTID communication protocol format. If the host device receives the recognition signal, it means the alarm is successfully reported. Otherwise, the host device will give alarms repeatedly. The alarm message is displayed and processed by the computer program of CMS.

3 Receiving alarms by using ordinary voice phone

Once the detector is triggered, the corresponding host device will decide if it gives a larms or not, according to the zone types. Delay zone, for an example, will give pre-warning tone after being triggered. If there is no operation of disarming during the pre-warning period, the monitor will display the number and alarm situations of triggered zone and the host device will automatically dial the preset alarm phone. There will be voice prompt in receiving the call. The following actions can be taken on the alarm phone by following the corresponding voice prompt.

Press [1] key: Clear alarm

Press [2] key: Inquiry the alarmed zone (The operation can be repeated \Box

Press [3] key: System disarm

Press [4] key: System arm

Press [5] key: System stay arm

Press [6] key: Activate siren on site(The operation can be repeated)

Press [0] key: Hang up

Remote Control

If no alarm handling or no other undefined keys are pressed after 10 seconds, the alarm process will continue. If theuser does not press 1 to clear the alarms or press 3 to disarm system, the host device will continue to dialother preset telephones to report the alarm. After the alarm is cleared, the host device will restore to the original state before alarming.

Use other phonesto dial the phones connected to the host device. The host device will automatically pick up the phone after presetring time (less than the local communication automatic hang up times) elapsed. Input user name and password on the phone by following the voice prompt. If it is passed the verification, then follow the voice prompt and take the following operations.

Press [1] key: System arm

Press [2] key: System disarm

Press [3] key: System stay arm

Press [4] key: Inquiry system status(The operation can be repeated)

Press [0] key: Hang up

3.3. 3.1.3 Password

Move the cursor Password, click the left mouse button to enter Password interface:

Password mainly set the admin user password and main user password.

Admin Password: default is 012345, this password is for setting alarm panel parameter through DVR keypad.

Main User Password: The user's password, default is 1234. It can make arm/disarm and voice phone control ect.



User Password: similar as mainuser password, but not that mainuser password is for all partitions, and user passwordjust for the specified partition 3.3.3.1.4 GSM Module

Move the cursor to GSM Module, click the left mouse button to enter GSM Module interface:

Please check and confirm the SIM card comply with GSM module requirement before activating this function.

GSM module requirement before activating this functio GSM Enable: Make calls and text messages. GPRS Enable: GPRS flow to access to the

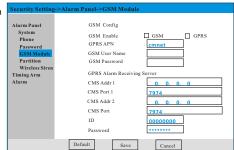
network and make alarm.

GSM APN: SIM card operator access point

GSM User Name: the default is null

GSM Password : the default is null

Alarm Receiving Serversetting, please referto platform setting



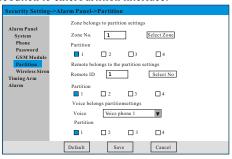
3.3.3.1.5 Partition

Move the cursor to Partition, click the left mouse button to enter Partition interface:

Partiton: This host support4 partitions, in some area the user can away arm, home arm, disarm, alarm separately.

Zone belongs to partition: can distribute each zone to any one or several partitions, but at least belong to one partition (the default is partition 1)

Remote belong to partition: can distribute each remote controller to any one or several partitions, but at least belong to one partition (the default is partition 1)



Voice belongs to partition: can distribute each voice phone to any one or several partitions, but at least belong to one partition (the default is partition 1)

A

When trigger alarm, it will trigger the corresponding alarm or zone fault according to the partition's arm/disarm status and this zone's alarm type. If this zone belong to multiple partitions, it will trigger alarm according to partitions' arm/disarm status. When arm/disarm the host via remote controller, the effective partition is which remote controller belong to. When some partition trigger alarm, the system will call this partition voice phone. The host keypad also with partition property, the details

e system will call this partition voice phone. The host keypad also with partition property, the details setting, please refer to keypad user manual, the partition keypad just can use this partition's user password ormain user password to arm/disarm this partition.

3.3.3.1.6 Wireless Siren

Move the cursor to Wireless Siren, click the left mouse button to enter Wireless Siren interface:

Wireless Siren Encode: if the user need external wireless siren, can use this button to encode, make the host work with wireless siren.

Press 'Save' key on the wireless siren, click the left mouse button on 'Wireless Encode'



When you hear prompt tone, indicate encode successfully. Delete wireless siren ID, press

'Del 1', 'Del 2' key at the same time for 1 minute.



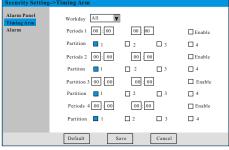
Before encode wireless siren, please delete the ID code which saved in wireless siren

3.3.3.2 Timing Arm/Disarm

Move the cursor to Timing Arm/Disarm, click the left mouse button to enter Timing Arm/Disarm interface:

User define the time according to requirements, if you choose this time period, please enable it.

Otherwise, this time period is ineffective. Below the periods, you can select the partition, indicate this time period is effective in this partition, if you select multiple partitions, this time period is effective in these partitions, if not select, it is ineffective to any partition. It can set 4 group of timing arm/disarm period per day. Each period consist of on timing arm and one timing disarm time.



- 1.If set the first period is later than the second period time, for a example [17:30-8:00], the correspond period is [firstday 17:30-8:00 second day].
- 2.All of the timing arm/disarm setting only in valid for the burglarand perimeter alarm. The others are effective in 24 hours.

3.3.3.3.1 Motion

Move the cursor to Motion, click the left mouse button to enter Motion interface:

Motion: The system will automatically take proper actions in respond to the changes of the screen status, someone is passing or the lenses are moved. It can set arm and disarm time, detection sensitivity, and detection areas. When it is triggered, it will link the video recording, alarm output and the rotation of camera to its proper preset position.

Channel:users may choose their desired channel for motion detection

Enable: enable the function of the motion detection



Arm/Disarm Related: choose this option to activate the motion detection.

Timing Related: when you activate this function, this channel motion detection is valid when the current time within this regular period.

Sensitivity:to define the sensibility of the motion detection. there are 7 kinds according to the users' needs.

Interval Time: When the channel detect motion detection, after a period of time, the device will detect this channel again.

Siren Tone: if enable the siren tone when you define the motion detection

Capture: if capture the photo when you define the motion detection

Send Email:when you define the motion detection, if there is a objection enter into the setting areas. The device will capture the photo and send to the mailbox.

Upload To CMS:if report to the CMS when you define the motion detection

Area Setting:each channel has its own motion detection area setting, move the cursor to Area Setting, Move the cursor to 'Area Setting', click the left mouse button to enter Area Setting interface, red color area indicate active motion detection. Click the left mouse button in the box to select or delete the area selection, also can press the left button to drag the mouse to select the area, please click the right mouse button to return, then save the settings.

Note: The minimum area of motion detection is limitby minimum square, the square on behalf of the minimum detection area, the number of squares of IPC and local analog channel is different.

The relationship between motion detection and arm/disarm related, timing related: when disable arm/disarm related, timing related, this channel's motion detection function just canset area, sensitivity etc. When enable arm/disarm related, timing related, the condition of motion detection effective is that satisfy the following conditions arm/disarm related enable, timing related enable at the same time.

3.3.3.3.2 Video Loss

Move the cursor to Video Loss, click the left mouse button to enter Video Loss interface:

Video Loss: when the host channel signal lost, it will trigger video loss alarm.(in 'Device install' page, if you set some channel has video signal input, but when you start the host and detect this channel no video signal input, the host will trigger video loss alarm)

Channel: users may choose their desired channel for video loss

Valid Time: the minimum time interval of trigger video loss alarm between last time and next time.

Security Setting->Alarm->Video Loss Alarm Panel Channel 1 Channel Timing Arm Alarm Motion Valid Time(0-255s) 0 Timing Related Timing Set Video Blind HDD Error Arm/Diarm Related Close ☐ Send Email Buzzer Upload To CMS Default

Siren Tone: if enable the siren tone when you define the video loss

Send Email: if send email to users when trigger "Video Loss" alarm;

Buzzer: if enable buzzer alarm when trigger "Video Loss" alarm.

Upload To CMS: if report to the CMS when trigger "Video Loss" alarm.

3.3.3.3 Video Blind

Move the cursor to Video Blind, click the left mouse button to enter Video Blind interface:

Video Blind: When the video camera lens are be covered by the unknown object. Host device will alarm according to below preset to work.

Channel:users may choose their desired channel for video blind

Sensitivity: define the times of the covered lens. It can adjustable from 1s-10s

Enable: enable the videoblind function or not

Arm/Disarm Related: if enable this function, only partition 1 underarm status, the video blind of this channel is valid, if disable this function, the video blind

Security Setting -> Alarm -> Video Blind

Alarm Panel
Timing Arm
Alarm
Motion
Video Loss

Video Blind

HDD Error

Arm/Disarm Related Close
Siren Tone Send Email
Capture Upload To CMS

of this channel has no relation to the arm/disarm status of partition 1.

Timing Set: if select this function, the Video Blind of this channel is valid in these time periods, if no selectthis function, it is no relation to the time periods.

Siren Tone: if enable the siren tone when you define the video blind.

Upload To CMS: if report to the CMS when you define the video blind

Send Email: if send email to users when trigger "Video Blind" alarm;

Buzzer:if enable buzzeralarm when trigger "Video Blind" alarm.

3.3.3.3.4 HDD Error

Move the cursor to HDD Error, click the left mouse button to enter HDD Error interface:

HDD exception type include: HDD Loss, HDD

Error, HDD Full, HDD Format;

HDD Loss: When the system detect the number of Hdd is less than the actual number of Hdd when installation, and also enable Hdd lose function, then the system will cause Hdd loss alarm. (if the number of HDD is 0, this function is invalid.)

HDD Error: when use HDD, due to various reasons cause the communication error between HDD and device, if enable HDD Error, it will cause alarm when HDD Error.



HDD Full: when HDD is full and also 'HDD cover type' as no overwrite, it will cause HDD full event, If enable HDDFull, it will cause alarm when HDD Full.

HDD Format: when enable this function, it will cause alarm when HDD format. (this function is mainly to prevent the man-made destruction of recording data)

Enable: if enable this function.

Siren Tone: if enablethe siren tone when you define HDD error.;

Send Email: if send email to users when trigger "HDD Error" alarm

Upload To CMS: if report to the CMS when you define the HDD Error;

Buzzer:if enable buzzeralarm when trigger "HDD Error" alarm

3.3.4 Network Setting

Move the cursor to Network, click the left mouse button to enter Network interface: include Basic Setting (Address, Port setting), Advanced (PPOE, DDNS, Email setting), CMS setting (Server, FTP setting), IP Filter 4 options.

3.3.4.1 Basic Setting

3.3.4.1.1 Address

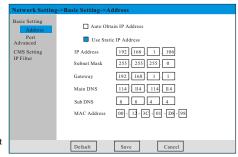
Auto Obtain IPAddress: Obtain the IP address from the Router.

Static IP Address: use the assigned IP address.

Default IP:192.168.1.106 Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

Main DNS: It refers to the IP of local primary domain name server on network used by the main host



Sub DNS: Sub domain local server IP used by the host.

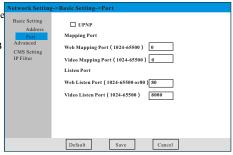
MAC Address: Assigned by the supplier users can change the IP address and MAC address at their will.

3.3.4.1.2 Port

UPNP: UPnP (Universal Plug and Play), it is a common name for a group of protocols, in simple words, UPNP is equal to automatic port mapping.

If it needs to map the ports in the LAN, such as WEB map port, video map port, alarm map port, and phone map port, then default UPNP is activated. The port Number can be set according to the requirement. The recommended port number is from 1024 to 65500.

Port mapping is actually one of the NAT address translation. Its function is to translate the public network address to the private address. The ADSL



broadband router using routing mode has a dynamic or fixed network IP. The ADSL router is directly connected to the HUB or switching equipment and all the computers are in the internet sharing mode.

Listen Port:in the LAN, if the default using ports of the device are banned by some routers or required to be use by other equipment. E.g. Port 80, port 8000, port 9000 ect., the listen ports have to be used for brows ing in the LAN. After setting the listen port, the equipment is required to reboot.

Example:Intranet IP of the device:192.168.1.69, apply for a extranet IP: test.3322.org. Set WEB Mapport as 2001, video map port 2002, phone map port 2003, web listen port 3000, video listen port 3001, phone listen port 3002, how to browse on the intranet and extranet?

Extranet browsing: WEB browsing: http://test.3322.org:2001(IE browsing)

Video browsing: http://test.3322.org:2002(Client browsing)

Phone browsing: http://test.3322.org:2003 (phones should be the supported models)

Intranet browsing: WEBbrowsing:192.168.1.69.3000(IE browsing)

Video browsing:192.168.1.69.3001(clientbrowsing)

Phone browsing:192.168.1.69.3002(phone should be the supported models)

Use the phone in the intranet, for example, the phone may support WIFI function and the router may have wireless function

3.3.4.2 Advanced

3.3.4.2.1 PPPoE

PPPoE (ON\OFF) :it is to enable or disable PPPoE function, the system default is disable.

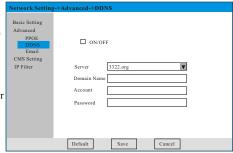
PPOE Account:user name provided by ISP
PPOE Password:the corresponding password
provided by ISP.

Enable PPPoE, input user name and password, save and exit, wait for 1 minute, enter the network setting interface, you will see the obtained IP. After restarting the equipment, it will automatically redial and obtain new IP address.

Network Setting	;->Advanced->PPPOE
Basic Setting Advanced PPOE DDNS Email CMS Setting IP Filter	PPOE Password
	Default Save Cancel

3 3 4 2 2 DDNS

DDNS is to map users' dynamic IP address to a fixed domain name service, when user is connecting to the network, the client program will transfer the dynamic IP address of the host device to the server program on the ISP's server by means of information transfer. And the server program will be responsible for providing DNS services and realizing dynamic DNS. In other words, dynamic DNS will capture users' ever-changing IP address and match it with the domain name, and then other network users may communicate with each other by means of domain name.



If it is to browse video on the WAN, firstly set transmission in the router settings. And then apply for a free domain name on 3322.org or DynDNS.org. Input the applied account and password in this setting box and save. Then you may browse on the WAN.

3.3.4.2.3 Email

Move the cursor to Email, click the left mouse button to enter Email interface:

邮箱设置步骤:

1) s蠢戏拍填漏旅递邮箱的SMJB服备器域流。

2or 類點接收計箱地址

- 2).input recipient address 3).Input send address, which can be the same as the Excipient address
- 4).input the password of send mail 5).clik与表达邮箱密码

点击保存



Main Alarm CMS Add. 14.152.92.56

Sync To Alarm CMS



1) The user hasto apply for an E-mail box which supports SMTP, otherwise the mail box service is not available;

Basic Setting

Advanced CMS Setting

2) Please fill in the correct receiver mailbox address and sender mailbox address.

3.3.4.3 CMS Setting

3.3.4.3.1 Server

It can set alarm CMS IP, if you want to upload the alarm information to the CMS, you have to apply and register and ID. If there are other CMS available for uploading, the CMS IP should be changed to the required IP. Enabling and disabling CMS require the restarting of the device.

Heartbeat Time: The interval time which the host send heartbeat info to CMS, the CMS will record the time when it receive the heartbeat info from the host, if not receive the heartbeatinfo after 4 interval time, the CMS

will consider this device offline, it will record this offline data in CMS.

Main Alarm CMS Port IP Filter Sub Alarm CMS Add. Sub Alarm CMS Port User Password Heartbeat (0-60S) Default Cancel

Sync To Alarm CMS: make the CMS address, port and user ID and password etcinfo synchronized to GPRS alarm receiving server.

3.3.4.3.2 FTP

FTP is used for the two-way transmission of the control files on the internet. Users may use FTP to connect their owndevices with all the servers using FTP protocols in the world and access the servers to obtain large amount of programs and information. The main function of FTP is to enable users to connect a remote computer, on which FTP server program is running, to check what kind of files there are on the remote computer. And then copy those files from the remote servers to the local computer, or send the files on the local computer to the remote servers.

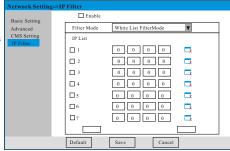


To set FTP, one should firstly have a server with FTP service function and apply for an account and password. And then input them in the setting box and save. Then you may upload the alarm videos to the server by FTP.

FTP in this device is used for uploading the alarm videos and alarm pictures in cooperation with CMS. Please remember to set the account and password before using CMS.

3.3.4.4 IP Filter

Under below setting can permit to access to the host device's IP or forbid to access to the host device's IP. If enable the black list, the IP from the black list can not access to the host device.



3.3.5 Access

This version software can not support this function now HDD Managemen

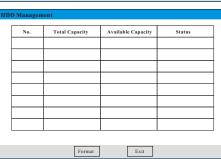
3.3.6 HDD

Move the cursor to HDD, click the left mouse button to enter HDD interface:

Explanation:

- 1) No.: The number of HDD:
- 2) Status: the status between HDD and device, include: normal, unformatted, exception.
- 3) Total Capacity:Themaximum storage space of the HDD
 - 4) Available Capacity: the balance capacity of HDD
 - 5) Format: delete all data from HDD, and initialize somenecessary data.

Note: because the new HDD from the market has not any data inside, so need to format the HDD and write some necessary data into HDD when you use it. in addition, need to format HDD when switch channel mode.



3.3.7 Logout

Logout the current user, if you need to operate the interface again, you need to log in again.

3.3.8 Restart

Restart the device system.

3.3.9 Shutdown

This version not support this function.

3.3.10 Version info

From this interface, can see channel info, Max. HDD numbers, zone numbers, alarm output numbers, Hardware version, software version, issue date, device type and MCU version etc. When upgrading the system or consulting with customer service, you must know these version info.

3.4 VideoDevice

Move the cursor to Video Device, click the left mouse button to enter Video Device interface:

In video device, list all channels for the device, firstly choose the channel when operation.

Stop: this function just for network channel, use to disconnect with IPC.

Edit: parameter setting for the selected channel, in this operation, the user don not need to consider the current channel is local analog or network, the system will open the corresponding channel interface according to the actual situation.

View: can check all details information for all channels.

The shortcut keys for channel setting: move the mouse cursor to the channel which you want to set, click the right mouse button, you will see these shortcut keys, click ' o enter parameter setting

3.4.1 Analog Channel Setting

3.4.1.1 Encode

Click Video Device, choose the channel, click Editto enter Channel Config, then move the cursor

to Encode, click the left mouse button to enter Encode interface:

In this setting, you can set audio, picture quality, frame rate etc, the details according to the user's requirement. If need monitor the scene of sound. Need passive MIC and audio output device.

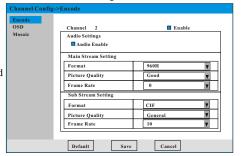
Audio Enable: if you want to encode audio data into video stream for this channel when encoding.

Main Stream Setting: it is device's recording stream, has 960H(D1), CIF. When set as 960H(D1), alarm recording, capture pictures with big size; picture quality divided into best, better, good, general, badetc.

Frame rate can set 1/25, the higher the better for the video quality. Default setting is 25 fps;

Sub Stream Setting: the sub stream setting in order to save network flows when transmission. The format include QCIF, CIF. Picture quality divided into best, better, good, general, bad etc; The videos with higher frame rate have higher video quality, the default setting is 10 fps.

Note: the recording file is audio and video mixed stream when enable audio.



3.4.1.2 OSD

Move the cursor to OSD, click the left mouse button to enter OSD interface:

Channel Titlename: in order to better distinguish the channels, user can name the channel

Time Title Switch: if make the system time into video stream;

Channel Title Switch: if make channel title into video stream:

Title X location: Channel title X axis coordinate
Title Y location: Channel title Y axis coordinate
Time X location: Time title X axis coordinate
Time Y location: Time title Y axis coordinate

Channel Confige-OSD

Encode
OSD

Mossale

Channel Title Name
Channel Title Color
Time Title Switch
On
Title Xitch
On
Title Xit

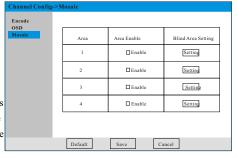
Title X/Y location and time X/Y location are expressed in percentage form.

Title Channel Color: the user can change the channel title color as per requirement, can be set as white and yellow color (this color can not make into video stream, just display on channel) 3.4.1.3 Mosaic

Move the cursor to Mosaic, click the left mouse button to enter Mosaic interface:

Blind Area Setting: It is also called mask settings. As for some important department or some fields related to privacy. We may use mask setting to avoid displaying these fields and ensure the security of the privacy.

Note: Mosaic can set 4 different areas at the most, click up to each channel's setting to set occlusion areas separately. Long press left button and Move the mouse to set the designated area, click up the left button in the designated area to cancel the current setting. Click up



the right button in the designated area to confirm the current setting. Please enable this function before blind area setting.

3.4.2 Digit Channel Setting

Digit channel access video stream is provided by IPC, before the setting of digit channel, please make sure IPC and the host both are access to the network, and the communication is normal.

3.4.2.1 Channel Set

Move the cursor to Channel Set, click the left mouse button to enter Channel Set interface:

The channel title name, time title just display on channel window, can not make into video stream. If the user want to modify or add channel title, time title of video stream, need to enterinto IPC setting directly.

Protocol: total 3 protocols for selection, ONVIF, MA PRIVATE, MA CMS;

ONVIF: Firstly need to enter IPC Search interface, search IPC, select IPC then click 'Confirm' button to return 'Channel Setting'

Digit Channel So	tting->Channel Set
Channel Set IPC Search Remote Set	Channel 4
	Stop Connect Exit

, enter IPC user name and password, click 'Connect' button to finish IPC connection.

MA_PRIVATE Meian private protocol, must use Meian IPC, directly enter IPC's IP address, port, user name and password.

MA_CMS: the application of this protocol is: User want the device used as a decoder, use some user's some channel video from CMS platform as for the input of this channel, for example decoding on the wall; enter the channel number which will obtain the video from CMS platform into the box of network protocol.

Stream type: the stream type of IPC is optional, the default is enable main stream and sub stream at the same time.IPC

- Note:1) if not select main stream and sub stream, you can connect IPC, but no video recording.
- 2) If select main stream, the device recording via main stream, but if request sub stream video from IE or mobile phone APP, you wil not get video data.
- 3) If select sub stream only, you can connect IPC, the device recording via sub stream, and if request main stream video from IE or mobile phone APP, you will get sub stream video.

Domain name: the domain name is related to the choice of network protocol, when the network protocol is 'ONVIF' and 'MA_PRIVATE', the domain is IPC's domain name address; when the network protocol is 'MA_CMS', the domain name is CMS platform's domain name address.

Port: the port is related to the choice of network protocol, when the network protocol is 'ONVIF' it will auto get the port when connect to IPC; when the network protocol is 'MA_PRIVATE', the port is 8000; when the network protocol is 'MA CMS', the port is 7976;

User name: the user name is related to the choice of network protocol, when the network protocol is 'ONVIF' and 'MA_PRIVATE', the user name is same as IPC's user name; when the network protocol is 'MA_CMS', the user name is CMS login ID.

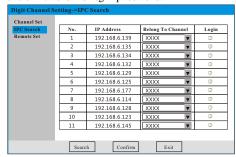
Password: the password is related to the choice of network protocol, when the network protocol is 'ONVIF' and 'MA_PRIVATE', the password is same as the password when connect IPC; when the network protocol is 'MA_CMS', the password is same as CMS login password.

3.4.2.2 IPC Search

Move the cursor to Digit Channel Setting, click the left mouse button to enter Digit Channel Setting interface:

Click 'Search' button, Search for all IPC that support the ONVIF protocol in the local area network;

1) Mark the box before No., It will auto associate the IPC information to current channel which you edit, then click 'Confirm', auto synchronize IPC information to channel setting interface.



- 2) In 'Belong to channel' column, you can search IPC related channel, but the channel can not reapeat. Click 'Confirm' button, when the related IPC number more than 2, it will save all IPC info into corresponding channel.
- 3) In 'Login' column, click ' is' to remote login IPC, enter remote IPC user name, user password to login.

3.4.2.3 Remote Set

In search interface, click 'Login', enter IPC username and password, remote login IPC, then you can set IPC parameters.



3.4.2.3.1 Network Setting

Remote set network address parameter of IPC, if the device connected this IPC already, need to connect it again.

3.4.2.3.2 Code Set

Remote set the encoding format of IPC, please refer to the setting of local analog channel.

3.4.2.3.3 Device info

Remote viewing of IPC's manufacturer, productinfo, version info, series number

3.4.3 Video channel query

Check the device channel name, main stream format, substream format, encoding switch, IPC address network protocol, connection status.

Auto Connect: under HDVR or NVR mode, click 'Auto Connect', the system will auto search all IPC which support Meian Private protocol in LAN, and auto connect the searched IPC to network channel. (The network protocol is 'MA PRIVATE')

3.5 Zone

Move the cursor to , click the left mouse button to enter Zone interface.

In Zone setting menu, you will see all zones, please choose the zone to operate, click 'Delete', 'Edit' to delete or edit the zone. If you want to add a zone, directly click 'Add'.

Add: adda zone:

Delete: delete the selected zone:

Edit: edit the selected zone.

3.5.1 Zone Setting

Click 'Add' to enter zone setting interface, or select some zone, click 'Edit' to enter zone setting

interface, wireless zone(1 \sim 32), BUS zone (33 \sim 96), wired zone (97 \sim 97+).

Zone No.: Inedit mode, indicate the current zone number, it is not selectable now; Inadd mode, indicate the add zone number, you can click 'Select Zone' and choose zone number. When the zone number is 0, indicate the system auto add zone according to selected zone type.

Zone type: In edit mode, zone type depends on the current zone number; In add mode, not select



zone number, then you can choose zone type, the system will auto add zone number according to zone type.

Id: wireless devices' unique code, you can manual enter this code, or wireless encoding.

Encoding: click 'Encoding' button, the device enter ID coding mode, Please trigger the device, then can get the device ID, click 'Confirm' to finish coding.

Type: zone alarm type.

Siren Tone: if enable siren tone when trigger this zone.

Address: the zone address, it is convenient to get the alarm address when alarm occurs.

Alarm type	Burglar	Delay	Perimeter	24H	Emergency	Fire	Stop
Awayarm	√	√	√	√	√	√	Х
Home arm	X	√	√	√	√	√	Х
Disarm	Х	Х	Х	√	√	√	Х



Note

" $\sqrt{\ }$ " means the host device will give alarms when the type of alarm is triggered.

"X" means the host device will not give alarms when the type of alarm is triggered. By default, the wireless zones are effective while the wired zones are all disabled. The Siren Type can be set according to the requirement. It is recommended to set different siren sounds in accordance to different alarm types. For an example, it can set [Mute] in case of Emergency Alarm.

3.5.2 Zone Linkage

Move the cursorto Zone Linkage, click the left mouse button to enter Zone Linkage interface.

Example: Link zone 3 to channel 1 PTZ, related channel 2 video recording to zone 03, related channel 3 capture to zone 03, related appliance switch 1 to zone 03, enable Email Prompt, enable Upload To CMS. When zone 03 was triggered alarm, the host will link channel 1 PTZ, send alarm information and alarm pictures to assigned mailbox; also send alarm information, channel 02 recording and channel 03 alarm pictures to CMS, and open the appliance switch 1.

Proceed as follows:

- 1) Refer to 3.5.1 to add zone 03;
- 2) Please set email before operation, refer to 3.3.4.2.3;
- 3) Please set the CMS configuration before operation, refer to 3.3.4.3;
- 4) Enalbe Email Prompt;
- 5) Enalbe Upload To CMS:
- 6) Set PTZ linkage, related zone 3 to channel 1;
- 7) Set recording linkage, related channel to zone 3;
- 8) Set Capture Linkage, related channel 3 to zone 3;
- 9) Set Smart Device Linkage, related switch 1 to zone 3;
- 10) Click [Save] button.
- 3.5.2.1 PTZ Linkage

3.5.2.1.1 Channel setting

Select the channel which link with PTZ.

3.5.2.1.2 Action Setting

Set preset, cruise, Locus of PTZ linkage.

3.5.2.2 Related channel selection

Select the linkage channel.

3.5.2.3 Smart Device Linkage

The user can select the related smart device according to requirement, when that zone was triggered alarm, the related smart device will be opened.

Area Options: select the area, you will see Area Device List, select the smart device you want to relate, click 'Confirm' button to finish.

Note: when use of Upload To CMS or Email function, please make sure the host can work with WAN normally. If you did not set recording linkage channel and capture linkage channel, the host will only send textalarm information to corresponding email and CMS.

3.5.3 Related Zone

it is required to associated with 2 neighboring wireless devices in case of preventing from false alarm. Within user set time, trigger two devices, the host will alarm, only trigger one of them, the host device will warn you: [You have entered private place, please exit quickly].

Related Time: the Max. intervaltime between trigger the related zone 1 and therelated zone 2. When the trigger time is greater than related time, this group zone will not alarm.

The host can set 8 related groups, click 'Select Zone' to select therelated zones, set Related Time, Enable this function, then click 'Save' to finish the setting of related zone group.

Note:

When use the related zone, we'll not suggest to use door contact sensor devices for suspected safety defects. Please do not overlap the related zones. It may lead to different alarm and unexpected functions.

3.6 Remote controller

Move the cursor to ' 2 ', click the left mouse button to enter remote controller interface:

You will see all the remote controllers from remote list, please select the remote controller before operation, then click 'Delete' or 'Edit' to delete or edit the remote controller. If you want to add a remote controller, directly click 'Add'.

Add: add aremote controller;

Delete: delete the selected remote controller;

Edit: edit the selected remote controller.

3.6.1 Remote controller

Click 'Add' button to enterremote controller interface, or select a certain remote controller, click 'Edit' button to enterremote controller interface.

Remote No.: In edit mode, indicate the current remote controller number, it is not selectable now, in add mode, indicate the addremote controller number, you can click 'Select No.' to select the number of remote controller, when the number of remote controller is 0, indicate the system auto add remote controller.

Enable: Active this remote controller;

ID: wireless devices' unique code;

Wireless Encode: click 'Wireless Encode' button, enter into ID coding mode, trigger the remote controller, then you can get the ID code, click 'Confirm' to finish coding.

User Name: the user of this remote controller, mainly convenient to know who arm/disarm the system.

Emergency linkage: when press the emergency button of remote controller, set the channel relate with this alarm (emergency alarm from remote controller).

Note: emergency linkage channel and zone related channel is different, the emergency linkage channel, it just popup the related channel from CMS, IE, LAN client, local interface when press the emergency button of the remote controller.

3.7 PTZ Control

Can set PTZ direction, zoom, focuse, aperture, presets, pattern etc. Used together with direction key. This PTZ menu support directions rotation of PTZ camera.

- 1) Directly click zoom, focus and aperture to adjust video size, definition, and brightness.
- 2) It supports 4 directions rotation of PTZ camera.
- 3) Set Presets:Rotate the camera to the desired position by pressing the directional buttons, click the preset button and input preset value. Click setup to save the setting.
- 4) Call Presets:choose a channel, input a preset value in the input box, and then click call button to call the preset value.

5) Call Pattern scan: Choose a channel, input a preset value in the pattern box, and then click cruise button to call the value, during the pattern scanning process, if PTZ receives other control information, then pattern scanning will stop immediately.

Note: The setting of pattern scanning has to be done in PTZ setting. In this screen, it can only be called.

3.8 Color Setting

Channel: select the channel number to set color parameters;

Default: restore to factory default setting;

Please select the channel first, then you can set the parameters.

3.9 Log Ouerv

Date: the log event date;

Log Type: alarm log, operation log, system log are optional.

Search: start to search log;

3.10 System status information

HDD: the connection status of HDD and working status;

Internet: if the network connection is normal;

CMS: if connect to CMS:

Tel-Line: if telephone line connection is normal;

GSM: GSM module working status;

GPRS: if the device enable GPRS to connect with CMS;

AC status: AC power status;

Battery: backup battery connection status;

Zone Bypass: manual bypass zone;

3.11 SMARTHOME

Move the cursorto 'a', click the left mouse button to enter smart home control interface, please add area before the operation, then add the devices into the area.

3.11.1 Smart Home Setting

Move the cursor to ' , click the left mouse button to entersmart home setting interface.

3.11.1.1 Area

Move the cursor to Area, click the leftmouse button to enter Area setting.

Area List: Listall of the areas;

Add: Adda new smarthome area;

Edit the corresponding smart home area;

: Delete the corresponding area;

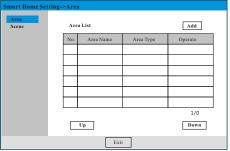
3.11.1.2 Area Setting

Click 'Add' button or click ' ; to enter smarthome edit interface.

Area Name: Smarthome area name. For example "My lobby", "My room" etc;

Area Type: have Lobby, Room, Hallway, Kitchen, Bathroom, Garden, Garage, Balcony, Hallway, Bar, Study, Children's room, Dining etc;

Channel Related: related with the video of this channel, the user can see the real situation of this area when the user remote access to this area and operate smart devices.



New Device: add newsmart home device, this function is only available in edit mode.

Area Device List: alldevices of this area, click ' 📮 ' ' 🙀 ' to edit, delete the device.

3.11.1.3 Set Appliance

In Area Setting interface, click 'New Device' or click '\$\square\sigma\' from Area Device List to enter appliance setting interface.

Device ID: the unique ID code of the switch;

Coding: here just forappliance switch coding. Pressone channel switch whichyou want to enroll until it lights on, hold on for 15s until the status LED blink every 0.1s, then the switch will emit wireless signal, then click 'Coding' button, the device enterinto ID coding mode, you will get the appliance switch ID, Click 'Confirm' to finish it.

Area name: inedit mode the user can switch the area name directly.

Scene index: each smartdevice can support 20scene modes, scene index is that which scene was supported by this smartdevice, no related to the number of scene.

Belong to scene: indicatethe smart device belong to which scene.

Action: ON/OFF, when that scene was opened, the smart device will open or close as per your setting.

Delay auto close time: the smart device willauto close after this time period, hereis the delay time, you must enable this function if you want to use it.

3.11.1.5 Timing Set

user set the regular time according to the needs, if activate this function, please make sure to choose the option box. Everyday, you can set four group of regular time, each period is consist of the start time and ending time.

3.11.1.6 Scene

Move the cursor to Scene, click the left mouse button to enter scene setting interface:

Scene List: Listall the scenes:

Add: add a new scene:

: edit the corresponding scene;

: delete the corresponding scene;

3.11.1.7 Scene setting

Click 'Add' button or click ' , to enter scene edit interface.

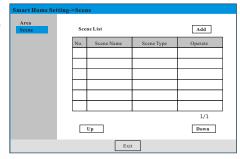
Scene Name: it is convenient to operate when the user set a meaningful scene name. For example "Breakfast mode" "Dinner mode" etc;

Scene Type:now we provide these scene type Meal Mode, Away Mode, Get Up Mode, Cinema Mode, Music Mode, Night Mode, Home Mode, Sleep Mode, Leisure Mode;

Area: select the smart device area;

Device: select the smartdevice, then click

'Add' button:



Scene Device List: Listall smart devices in this scene, click 'x' to delete the smart device from this scene.

3.11.2 Smart Home Operation

You will see all added areas from Area List, when use it, click the target area, at the bottom right corner of the interface will show which types smart devices in this area and the quantity of each smart device type. Click one type smart device icon, enter the setting of this smart device.

Scene control: click ' to switch scene control, click the scene icon, you will see a tick on the upper right corner of the scene icon, indicate enable this scene, if you click the scene icon again, it will disable this scene.

Playback

Move the cursor to ' click the left mouse button to enter playback interface.

Time Input: the user canchoose the date and time;

Recording type: All, Timing/Manual, Alarm, Motion detection recording, total 4 options;

Click 'Search' button, if there is video recording, the following channels will display different color recording as per different recording type. Alarm recording is red color, motion detection recording is yellow color, timing/manual recording is blue color; if no recording, it will display grey color.

Explanation:

- Play key
- Stop key
- Fast Backward key
- Fast Forward key
- Voice On/Off key
- Recording Backup key
- Pop up USB key
- x1 24h Display
- 1h Display, convenient to precision time point query.
- 6m Display, convenient to more precision time point query.
- Full Screen key

