

WISENET

DIGITAL VIDEO RECORDER
User Manual

SDR-94307/SDR-95307

CE

Overview of DVR

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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. Please use the power supply enclosed 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 so as to avoid electric shock or other accidents.
3. Do not put the equipment in a dusty location.
4. Do not place the equipment under the rain or humid environment like the basement.
If the equipment is accidentally in contact with water, please unplug the power cable and immediately contact technical support.
5. Keep the surface of the equipment clean and dry.
Use a soft damp cloth to clean the outer case of the DVR. (Do not use liquid aerosol cleaners.)
6. Do not operate if any problems are found.
If there is a strange smell or sound from the DVR, unplug the power cable and contact technical support.
7. Do not try to remove the DVR cover to avoid electrical shock.
8. Handle with care.
If DVR does not work properly, please contact technical support for repair or replacement.
9. Install and place the equipment in a well ventilated area. The DVR system includes a HDD, which produces large amount of heat during operation. As a result, do not block the ventilation vents (on the top, bottom, sides and the back of the DVR).
10. The power adapter should only be connected to the DVR. Do not connect it to additional equipment or else the DVR may restart repeatedly due to insufficient power.
11. Do not install near any heat sources such as radiator, stove, and other machinery or devices (including speakers) that produce large amount of heat.
12. If the provided plug does not fit your outlet, please technical support for assistance.
13. Protect the power cord from being walked on or pinched particularly at the plug level and each ends of the cord.
14. Only use attachments/accessories specified by the manufacturer.
15. Only use the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the system.
When a cart is used, use caution when moving the cart and the device to avoid injury from tip-over.
16. Unplug the device during lightning storms or when unused for long periods of time.
17. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is broken, liquid has been spilled or objects have fallen onto the device, exposed to rain or moisture, does not operate normally, or has been dropped.



Standards Approvals

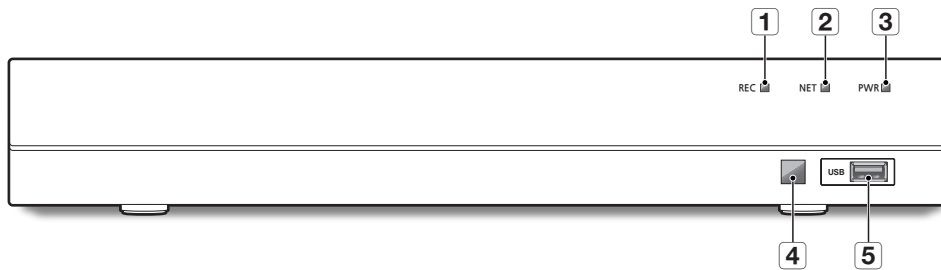


- 
 - Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- 
 - This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
 - This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Overview of DVR

FRONT PANEL

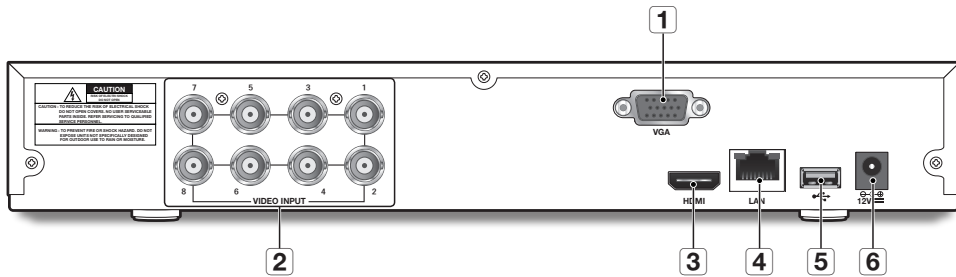
DVR is short for Digital Video Recorder.



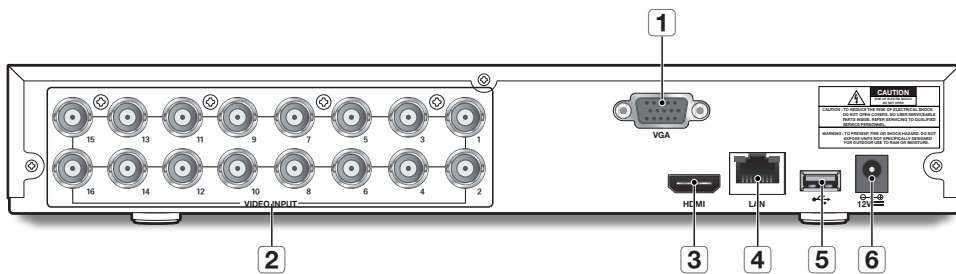
Type	Key or indicator	Identification	Functions	
1	Status lamp	HDD indicator	REC	If the "Red" indicator flashes, the hard drive is being read or written to. ■ The red light will illuminate when HDD is installed.
2		Network indicator	NET	Display network connection and data transfer status.
3		Power indicator	PWR	If the "Blue" indicator is on, DVR is getting power normally.
4	IR port		□	Receive IR signal from Remote Controller.
5	USB port	USB	USB	USB port

REAR PANEL

SDR-94307



SDR-95307

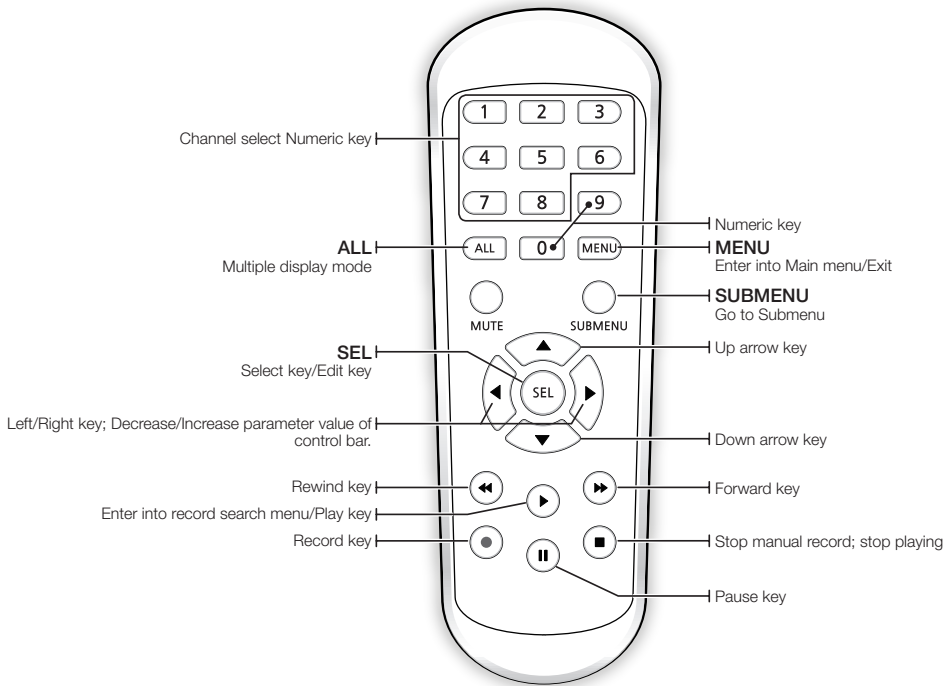


Physical Interface	Connection
1 VGA port	Connect with VGA display devices, such as PC monitor.
2 VIDEO INPUT	Connect with (analog) video input device, standard BNC port.
3 HDMI	Connect with HDMI display devices, such as PC monitor.
4 LAN: (RJ45) Network port	Connect with LAN, Ethernet cable.
5 USB port	Connect with USB.
6 Power port	Connect with the power supply, included with the device. - SDR-94307 : DC 12V 2A - SDR-95307 : DC 12V 3A

Overview of DVR


REMOTE CONTROLLER

Operation of remote controller



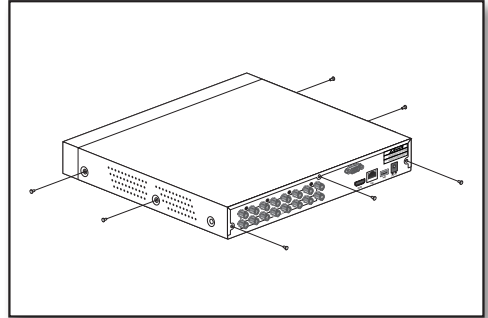
- There is no function of Mute button.
- The administrator is recommended to store the remote control carefully in order to initialize it if the password is lost.

INSTALL HARD DRIVE

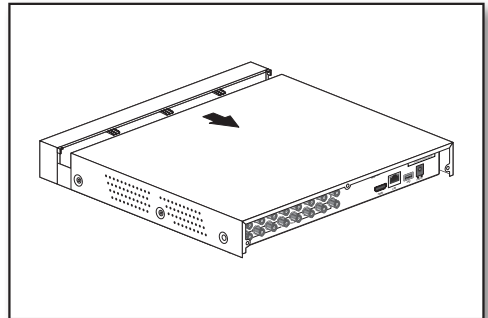
-  ■ HDD is pre-installed. If you want to replace hard disk drive, please refer to the following instruction. Please do not remove the hard drive when DVR is operating.

Installation of Hard Drive

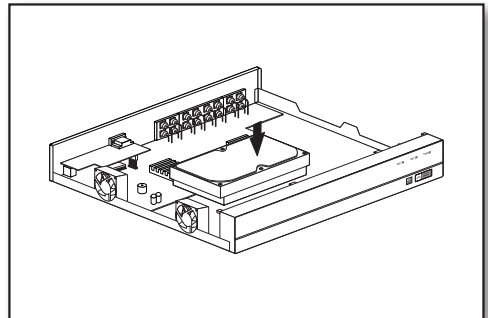
1. Using a screwdriver, remove the screws from the side and back panels.



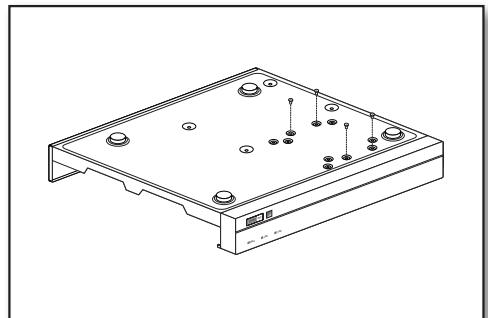
2. Remove the top cover.



3. Connect data and power cables of hard drive to the motherboard. Mount the hard drive by mounting it onto the rack and connecting the power and data cables.



4. Multiple groups of screw mounting holes are provided on the bottom of the DVR. Screw the hard drive in place according to the size of your hard drive.

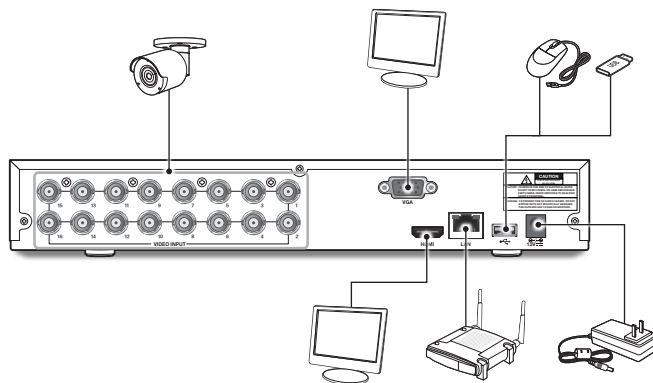


Overview of DVR

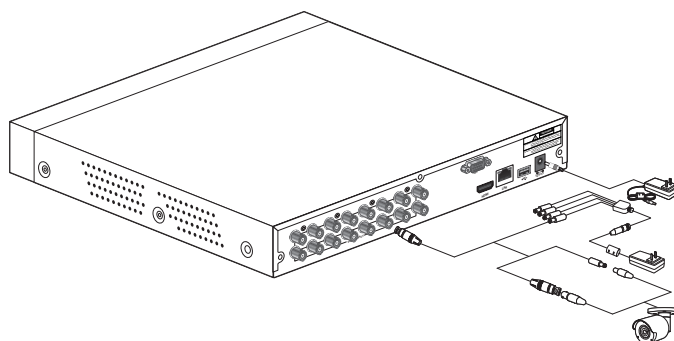
CONNECT EXTERNAL EQUIPMENT

Connect your monitor to the DVR using the VGA or HDMI video cable. Connect DVR to the power supply adapter provided. After all connections are completed, plug the DVR in to perform function checks.

- The appearance of power adaptor differs depending on sales region.



CONNECT DVR



- Images may differ depending on the model.
- Camera's shape can be different depending on AIO Kit you purchased.
- Power splitter differs depending on the number of camera connected.

DVR Boot up

SYSTEM INITIALIZATION

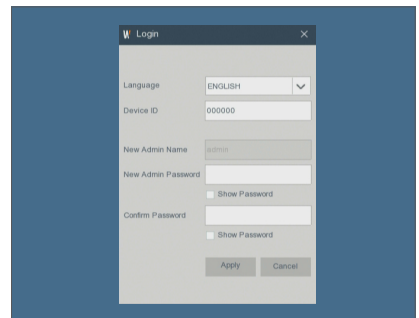
After connecting the DVR power cable to wall outlet, the DVR system initializing screen will appear.



LOGIN

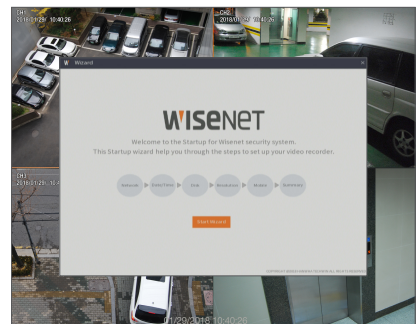
1. The login dialog appears.
2. The password setting window appears for the first time. If you have changed your password, enter your new password.
3. Click the [Apply] button.

- Please create a user name and password for your device. Password MUST be 8~13 characters long. When password is 8~9 characters long, it should be with at least a combination of letters, digits and special symbols. If it is 10~13 characters long, it should be with at least a combination of two types of characters. 4 or more contiguous or repeated characters or key arrangement are prohibited, for example 1111, 1234, abcd, qwerty.
- Change your password on a regular basis.



STARTUP WIZARD


After the DVR startup is complete, the startup wizard will display. Wizard setting menu includes: Network, Date/Time, Disk, Resolution, Mobile and System summary.




DVR Boot up

Use Virtual Keyboard

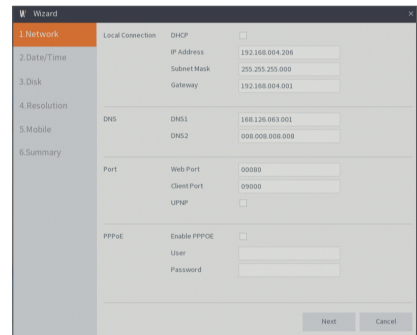


Virtual keyboard window will be displayed for input. Click on the desired characters to apply them. Press <  > to switch to input of upper-case letters.

Press <  > again to switch to input of special characters. The virtual keyboard is used in the same way as with physical keyboard.

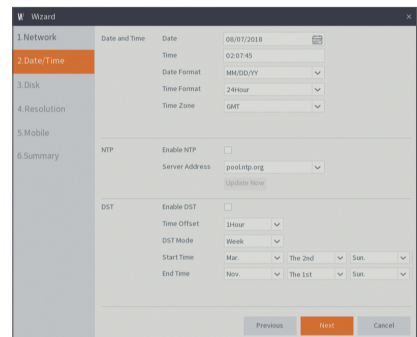
For input of password, use letters and special characters other than <\> and <">.

1. Network (DHCP): In DHCP mode the router will automatically assign an IP address to DVR. If the DVR fails to obtain an IP address, refer to the DVR Router Guide. If the problem still cannot be resolved, contact technical support.



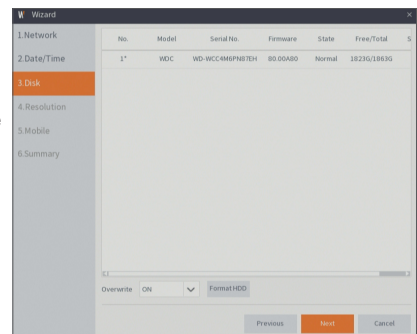
Step	Section	Field	Value
1. Network	Local Connection	DHCP	<input type="checkbox"/>
		IP Address	192.168.004.208
		Subnet Mask	255.255.255.000
2. Date/Time	Date and Time	Date	08/07/2018
		Time	02:07:45
		Date Format	MM/DD/YY
3. Disk	Disk	Time Format	24hour
		Time Zone	GMT
		Time Zone	GMT
4. Resolution	Resolution	Resolution	1080i
		Frame Rate	30FPS
5. Mobile	Mobile	Mobile	<input type="checkbox"/>
		Mobile	<input type="checkbox"/>
6. Summary	Summary	Web Port	8080
		Client Port	8080
		UPnP	<input type="checkbox"/>
		PPPoE	<input type="checkbox"/>

2. Date/Time: Set the date, time, date format, time, NTP, DST.



Step	Section	Field	Value
1. Network	Date and Time	Date	08/07/2018
		Time	02:07:45
		Date Format	MM/DD/YY
		Time Format	24hour
		Time Zone	GMT
2. Date/Time	Date and Time	Date	08/07/2018
		Time	02:07:45
		Date Format	MM/DD/YY
		Time Format	24hour
3. Disk	Disk	Time Zone	GMT
		Time Zone	GMT
		Time Zone	GMT
4. Resolution	Resolution	Resolution	1080i
		Frame Rate	30FPS
5. Mobile	Mobile	Mobile	<input type="checkbox"/>
		Mobile	<input type="checkbox"/>
6. Summary	Summary	Enable NTP	<input type="checkbox"/>
		Server Address	pool.ntp.org
		Update Now	<input type="button" value="Update Now"/>
		Enable DST	<input type="checkbox"/>
		Time Offset	3hour

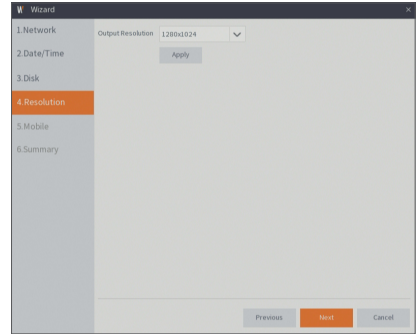
3. Disk: Any new disk connected must be formatted before use. Click on "Select" to highlight the hard drive to be formatted. Click on "Format HDD" and the user login box will appear. Enter the password to log in. Click on "OK" to format the disk when the "Entire data will be erased, do you want to continue?" dialog box appears. Formatting process is complete when the progress bar is full.





Step	Section	No.	Model	Serial No.	Firmware	State	Free/Total	S
1. Network	Date and Time	1*	WDC	WD-WCCAMFNBTEH	90.00A90	Normal	1823G/1893G	5
2. Date/Time								
3. Disk								
4. Resolution								
5. Mobile								
6. Summary								

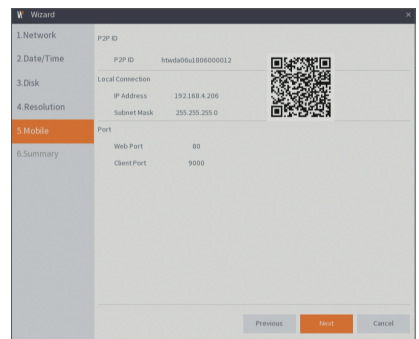
Overwrite: ON OFF

4. Resolution : Select resolution for your monitor.




5. Mobile : Shows P2P ID for connecting DVR by mobile device. Shows DVR's network setup information such as IP address, subnet mask and port number.

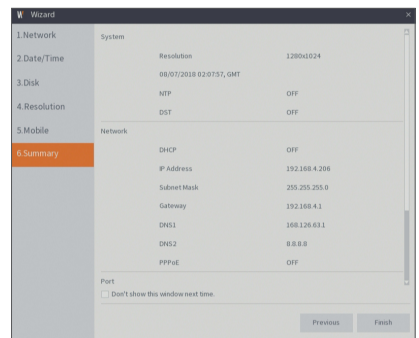
-  Remote monitoring can only be performed by an operator with an admin account.
-  Please refer to the separate manuals for the Web and mobile viewer.



6. Summary : Shows system and network status of DVR.

7. Click on "**Finish**" to finish setting of startup wizard.

-  You can click on "**Don't show this window next time**" if you do not wish to have the wizard setting to appear next time.



DVR Boot up

MAIN INTERFACE

In real-time preview mode: right click on any area to access the desired menu. Right click on it to open a context menu, whose menu items may vary depending on the specific condition, such as sign-in, sign-out, split screen mode and various operation conditions. Left click on any channel to access shortcut menu, where operations such as image capture, recording and image zoom-in are available.



The video recording marks are as shown below:

● : means common Recording.

👤 : means Motion detection.

Component Name	Function
1 Channel Name	Display channel name
2 Video Loss	Camera is off-line
3 Manual Recording	Enable or disable manual recording
4 Manual Capture	Make a snapshot of current video
5 Instant Playback	Playback of the last five minutes of the video
6 Zoom	Hold and drag mouse cursor to select a frame of current video to zoom in
7 Color Setting	Set hue, brightness, contrast and saturation of current channel
8 Main Menu	Access the main menu

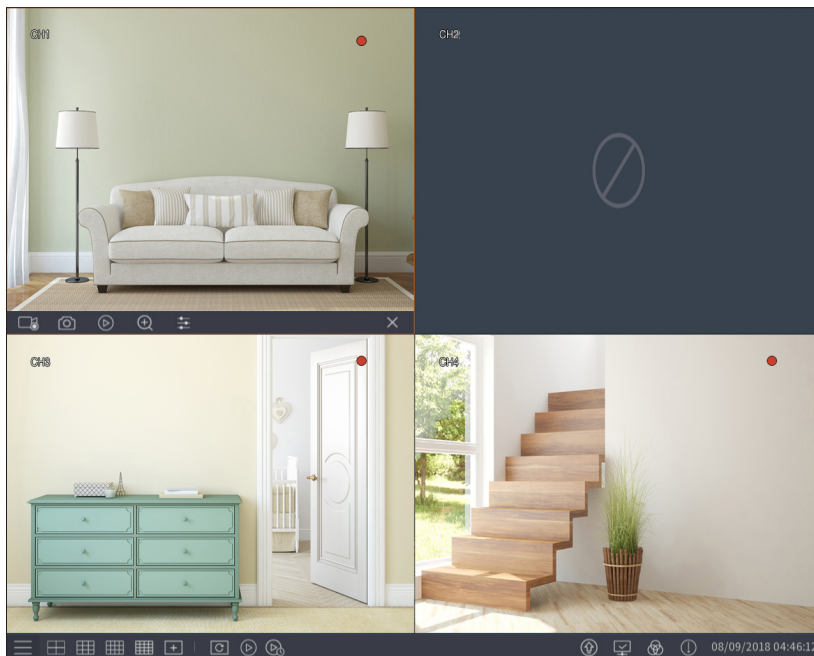
Component Name	Function
	4-Channel Layout Display four channels of video
	9-Channel Layout Display nine channels of video
9	12-Channel Layout Display twelve channels of video
	16-Channel Layout Display sixteen channels of video
	More Layout Display 8/10/13/14 channels of video
10	Auto SEQ Press this button to switch the screen mode in sequence
11	Play Replay video recorded
12	Upgrade Press this button to enter Auto Upgrade menu.
13	Connection state Display the network connection status
14	Manual mode Set manual recording mode
15	System System Information

DVR Menu

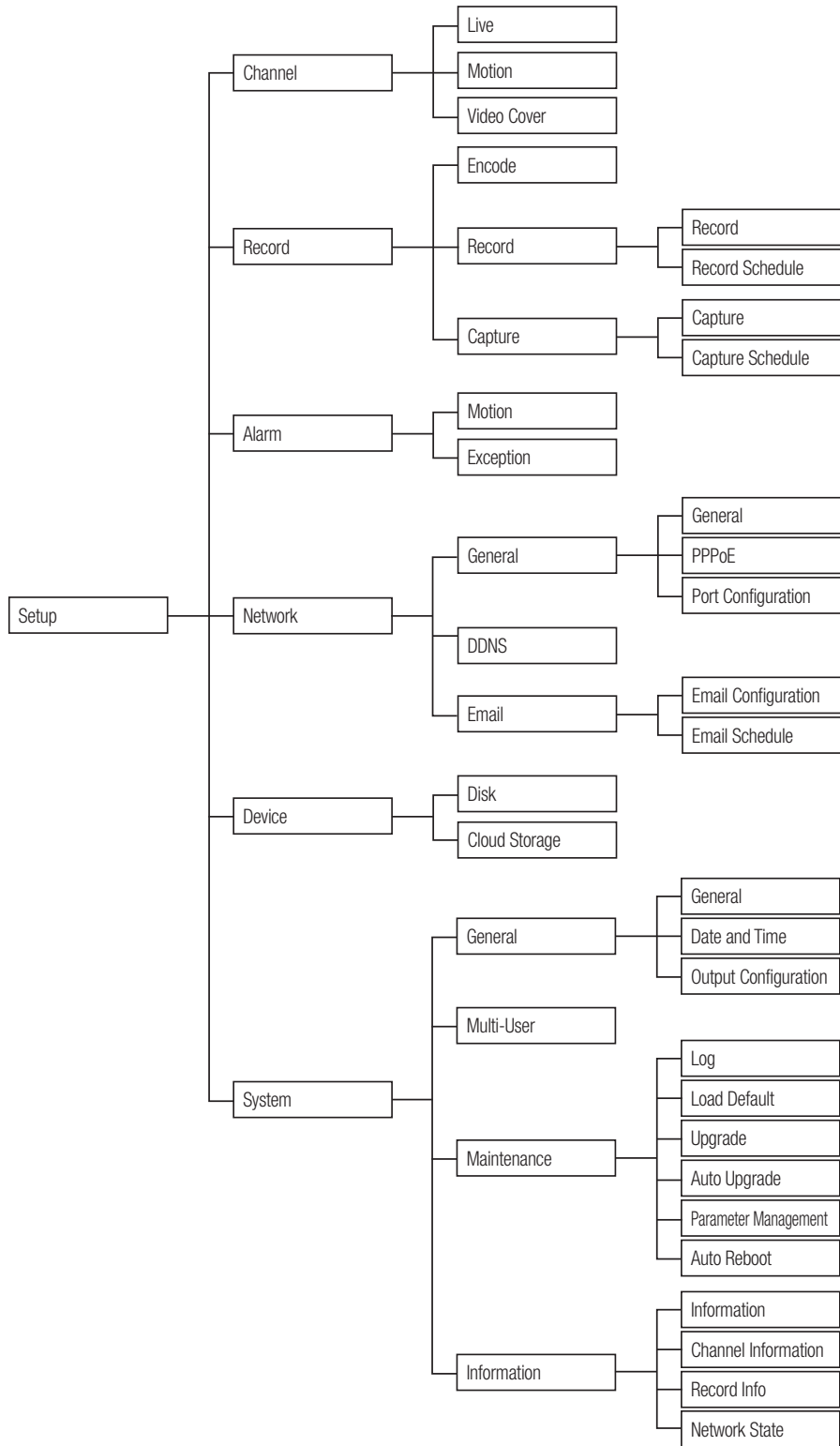
POPUP MENU

After finishing system initialization, right click the 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, Record Search, Sequence and Brightness settings.

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



MAIN MENU GUIDE



DVR Menu

SETUP

On LIVE mode, click the mouse Right button, or [Menu] button on the remote controller, and select [] icon on the toolbar to enter the main menu screen.


If system interface is locked, refer to page 32 to unlock by entering your password.

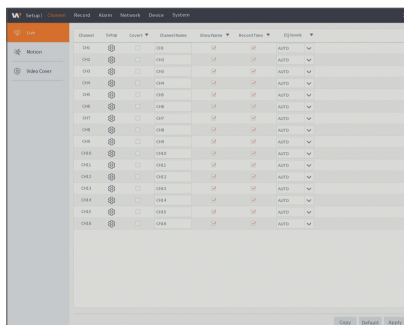
In Main Menu mode, you can make settings for Parameter, Record Search, Device, System, Advanced and Shutdown.

Channel

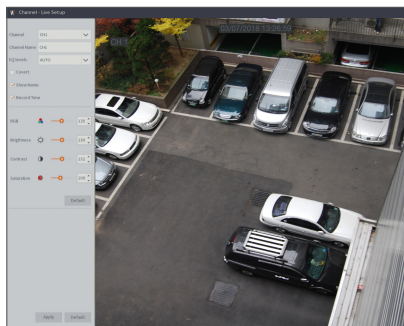
Live

Go to "Setup" → "Channel" → "Live" to enter into the interface.

- **Channel** : Select the channel in the drop-down list.
- **Setup** : Click [] to display the detailed setting window.
- **Covert** : Enable/Disable Video hiding.
- **Channel Name** : Can be up to 40 characters in length.
- **Show Name** : Showing Channel name
- **Record Time** : Enable or disable displaying system time in recording.
- **EQ levels** : Set the camera EQ levels. It allows you to set the EQ levels according to the distance between camera and DVR.
 - AUTO, 1(0~50m), 2(50~150m), 3(150~250m), 4(250~350m), 5(350~450m).




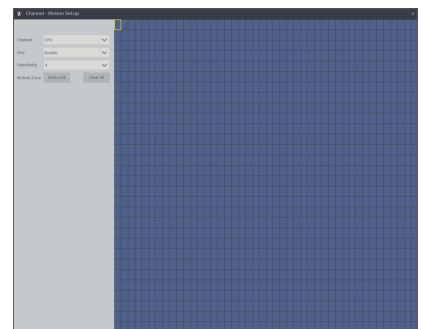
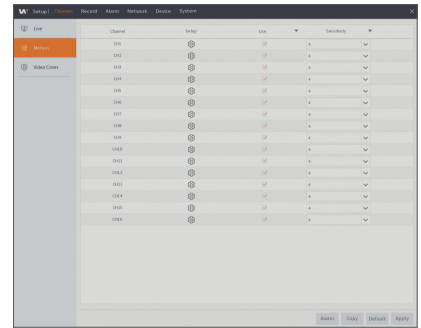
- **RGB** : Adjust the chromaticity of video
- **Brightness** : Adjust the brightness of video
- **Contrast** : Adjust the contrast of video
- **Saturation** : Adjust the saturation of video



Motion

Go to "Setup" → "Channel" → "Motion" to enter into the interface.

- **Channel** : Select Channel.
- **Setup** : Click [] to display the detailed setting window.
- **Use** : You can select whether or not to use the use.
- **Sensitivity** : Support 1-8 level, 8 is the highest level.
- **Motion Zone** : Set an area where motion is detected.

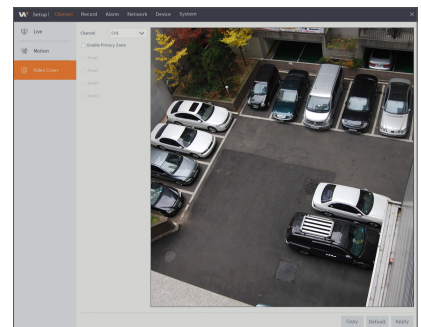


Video Cover

Go to "Setup" → "Channel" → "Video Cover".

Privacy Zone is to block certain area(s) in the camera's field of view on live video of selected channel.

1. Click "**Enable Privacy Zone**" and select the number of the Area(s) to be blocked.
2. Adjust the position and zone of the Area(s).
3. Click "**Apply**" to save the setting.



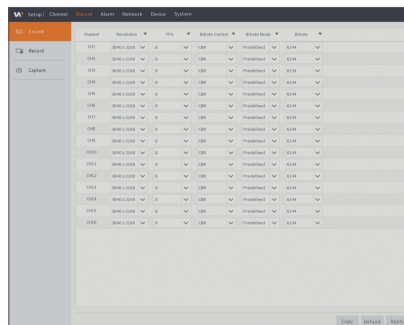
DVR Menu

Record

Encode

Go to "Setup" → "Record" → "Encode" to enter into the interface.

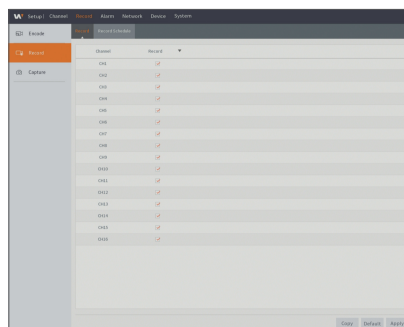
- **Channel** : Set the desired channel in the drop-down menu.
- **Resolution** : 960x 480 / 1280x720 / 1920x1080 / 2048x1536 / 2560x1440 / 2560x1944 / 3840x2160
- **FPS** : Select recording frame rate.
- **Bitrate Control** : Select either constant (CBR) / variable (VBR) bitrate.
- **Bitrate Mode** : Select default/custom bitrate.
- **Bitrate** : Bitrate setting.



Record

Go to "Setup" → "Record" → "Record" → "Record" to enter into the interface.

- **Channel** : Set the desired channel in the drop-down menu
- **Record** : Enable/disable record



Record Schedule


Go to "Setup" → "Record" → "Record" → "Record Schedule" to enter recording schedule for the DVR.

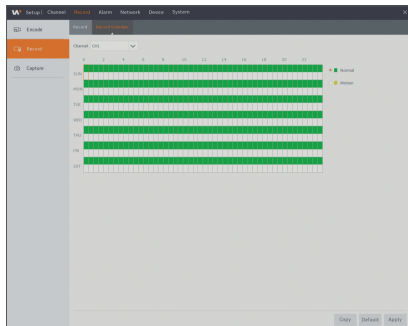
Schedule interface

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.

- 
 - In the Record menu and Record Search menu, when no colors are presented, it means there are no recordings during that time;
 - "Green" stands for normal record and "yellow" stands for motion record.

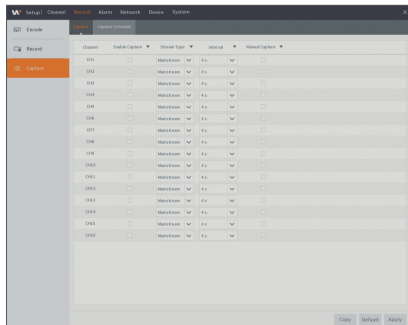


Capture

Go to "Setup" → "Record" → "Capture" → "Capture".

- **Channel** : Select capture channel
- **Enable Capture** : Enable/Disable auto capture.
- **Stream Type** : Select MainStream or SubStream.
- **Interval** : 4s / 8s / 25s / 1Min / 10Min / 30Min / 1Hour
- **Manual Capture** : Enable/Disable manual capture

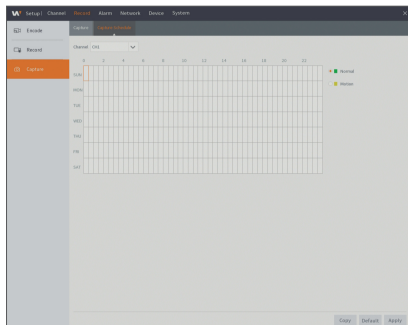
- 
 - You can click on the icon  in the live window to manually capture the image with your mouse.



Capture Schedule

Go to "Setup" → "Record" → "Capture" → "Capture Schedule".

- **Normal** : Conventional capture setting
- **Motion** : Motion detect capture setting



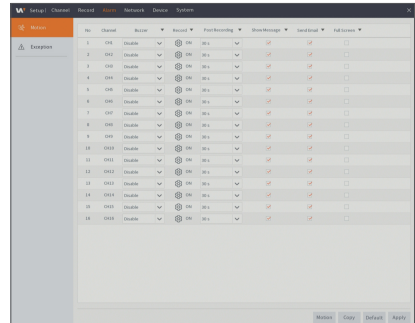
DVR Menu

Alarm

Motion

Go to "Setup" → "Alarm" → "Motion" to enter into the interface.

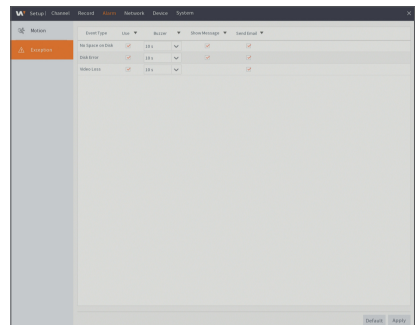
- **Buzzer** : When detecting object moving, buzzer makes alarms (disable, 10 seconds, 20 seconds, 40 seconds and 60 seconds).
- **Record** : When object motion is detected, the record channel setting will be activated.
- **Post Recording** : After the alarm finishes, the duration time of the alarm recording can be set as 30 seconds, 1 minute, 2 minutes and 5 minutes.
- **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** : If motion is detected, the channel where the motion occurred is changed to a full screen view.



Exception

Go to "Setup" → "Alarm" → "Exception" to enter recording schedule for the DVR.

- **Event Type** : Support three abnormal types: No Space on Disk, Disk Error and Video Loss.
 - No Space on Disk : When 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.
 - Disk Error : Alarm will appear when the HDD does not work due to damage, power failure, HDD auto-overwrite off and insufficient space.
 - Video Loss : When the DVR fails to receive video signals due to some problems (camera damage, wireless signal is weak, power failure), the alarm will appear.
- **Use** : Active alarms for abnormal situations.
- **Buzzer** : How long the buzzer will sound (10s, 20s, 40s, 60s).
- **Show Message** : You can set show message on the screen when alarm is detected.
- **Send Email** : Select to send Email to specified Email address when abnormal events appear.



Network

General

Go to "Setup" → "Network" → "General" → "General" to enter the interface.

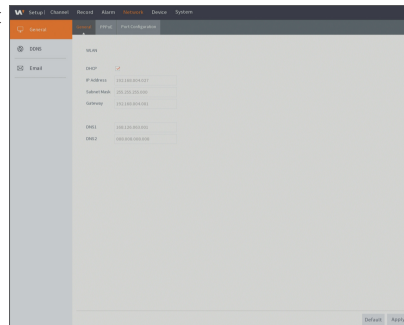
Select the network connection option (PPPoE, DHCP, Static) to set the port. User can view and do the recording, playback or backup of the video remotely.

Take DHCP as an example. In this mode, the router automatically assigns IP address for the DVR. After restarting the DVR or DHCP server, the IP address obtained by the DVR may be different. As a result, you need to check the IP address and port numbers before remote access to the DVR every time. The operation procedure is as follows:

1. Select DHCP, click Save and restart the DVR. Input Client Port and Web Port (the two ports must be different).

For PPPoE, Static and DHCP, after setting the IP address for the DVR, the extranet port shall be mapped in the router before visiting DVR through public network.

- Save the setting to apply the changes made. If there are multiple DVRs in a LAN, make sure their MAC addresses are different.

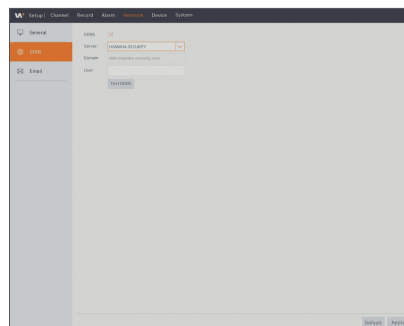


DDNS

Go to "Setup" → "Network" → "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 the DVR through domain by using User may remotely access the DVR through domain by using CMS. When using DDNS domain name to access the DVR, user must 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 the DVR local setting.

- **Server** : Select dynamic domain name server provider. Available domain name servers (HANWHA-SECURITY, DDNS_3322, DYNDNS, NO_IP, CHANGEIP, DNSEXIT)
- **Domain**: dynamic domain name of the host obtained from dynamic domain name service provider upon registration, for example, http://ddns.hanwha-security.com/snb5000
- **User** : The user name registered upon application for dynamic domain name.
- **Password**: The password set upon registration.
Click on "Test DDNS". If connection succeeds, it will be indicated that "DDNS Test is Successful!"



REGISTERING WITH DDNS

To register your product with the Wisenet DDNS

1. Visit the Wisenet DDNS web site (<http://ddns.harwha-security.com>) and sign in with a registered account.

2. From the top menu bar, select <MY DDNS>.



3. Click the [Register Product] tab.

4. Select DDNS button.

5. Enter the product ID.

6. Select a <Type> and specify the <Model>.

7. Specify the product location with a description if necessary.

8. Click [Product Registration].

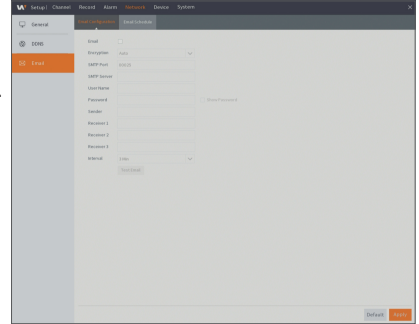
The product will be added to the product list that you can check.

No.	Product ID	Model	Connection Status	Product Management	View	Video Tagging
1	WNR102T		OFF	Edit Status	View	
2	WNRW12312		OFF	Edit Status	View	

E-mail

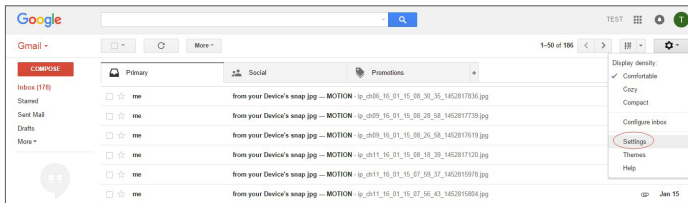
Go to "Setup" → "Network" → "Email" → "Email Configuration" to enter into the menu interface. Receive or Send DVR alarm Email and set parameters like Email address, SSL, Email Enable, and Interval.

- **Encryption:** Disable, SSL, TLS and Auto optional. Auto means it can detect the encryption type automatically. It is recommended to set the encryption type as Auto.
- **SMTP Port:** Mail sending port used by SMTP (Simple Mail Transfer Protocol). Server is generally Port 25 or Port 465 when SSL is used by Gmail.
- **SMTP Server:** Enter the address of the server for the mailbox in use.
- **User Name:** Enter a server to connect to. For example, email "aaa@gmail.com" should correspond to server "smtp.gmail.com"
- **Password:** Enter the password of the SMTP server user.
- **Sender:** Sender's mail address, which must correspond to the server used. For example, mailbox "aaa@gmail.com" should correspond to server "smtp.gmail.com".
- **Receiver 1/2/3:** Recipient's mail address, used to receive alarm image and message from DVR side. If system alarms continually and sends email images frequently, save the images to another location or remove them, so as to avoid excessive space occupation and thereby affect your normal use of mailbox.
- **Interval:** A mail will be sent every three minutes by default. If the time interval for mail notification is set too short, email server may deem mails as junk mails, so they cannot be transferred normally.



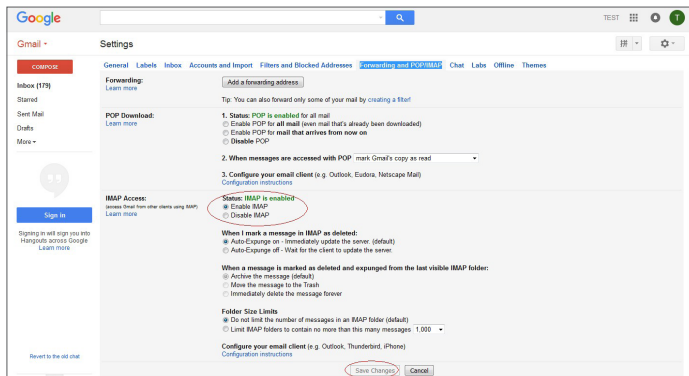
Mailbox Setting:

For example, if you are using Gmail, sign in to the GMAIL mailbox. <https://mail.google.com>



DVR Menu

Click on "settings--Forwarding and POP/IMAP"



Click on "Enable IMAP--Save Changes"


E-mail Schedule

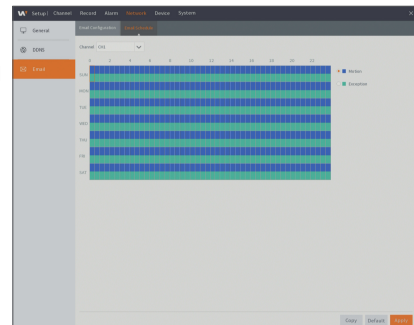
Go to "Setup" → "Network" → "Email" → "Email Schedule" to make Email schedule.

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.

-  Blue stands for Motion: Email will be sent in case of object motion;
- Green stands for System: Email will be sent in case of System, e.g. No Space on Disk, Disk Error, Video loss, etc.



Device

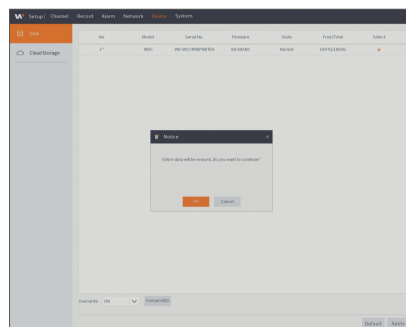
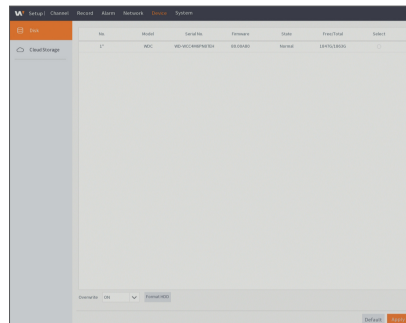
Disk

Go to "Setup" → "Device" → "Disk" to enter into the interface.

When HDD is connected, the system will automatically detect if the HDD is OK or not; if the HDD needs to be formatted, select the HDD and format it. If the system detects the HDD is OK, the HDD status will be shown as "OK".

- **No.** : Number of HDD connected to system.
- **Model** : Displays HDD model name.
- **Serial NO.** : Displays the HDD serial number.
- **Firmware** : Displays the HDD firmware version.
- **State** : It shows the current status of the HDD. It will be available only when the HDD is "OK".
- **Free/Total** : Remaining or total space of the HDD
- **Overwrite** : When set to ON and the hard drive is full, the DVR will overwrite the oldest files on the hard drive. When set to OFF and the hard drive is full, the DVR will stop recording.
- **Format HDD** : Format HDD for the first use.

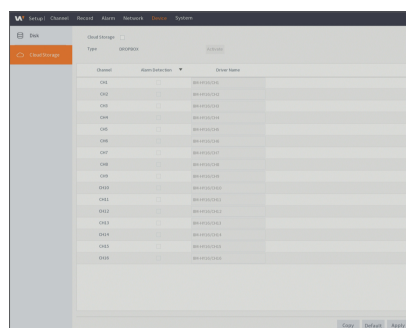
 ■ Recording can only be performed when the HDD is in "Normal" state.



Cloud Storage

Cloud Storage

- **Cloud** : It can upload the captured pictures to Dropbox at normal time, or when motion detection happens.
 - 1) To use the cloud backup, you need to register your email first. For the detail, please refer to the page 23.
 - 2) Register an account on <https://www.dropbox.com/>.
 - 3) Configure network to ensure DVR is under network.
 - 4) Configure Cloud: Enable Cloud and set the channel. Enable Motion Detection to have it capture pictures when motion detection happens.
 - 5) Drive Name 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 captured pictures from the DVR.
 - 6) Click [Activate Cloud] to activate Cloud and Email for the user verification will be sent. Click the link in the email and then log in to your dropbox account, and click permit. DVR cloud storage function will be activated. If you have logged in your dropbox account before Cloud storage activation, then no need to relogin. Just click Permit to complete the activation. Please finish the activation within 3 minutes. After activation is completed, you can use the Cloud storage function.
 - 7) Click the icon at the upper-left of dropbox account interface to view the folder made in the 5th step.
 - 8) Open the Dropbox folder to view the DVR captured pictures.



DVR Menu

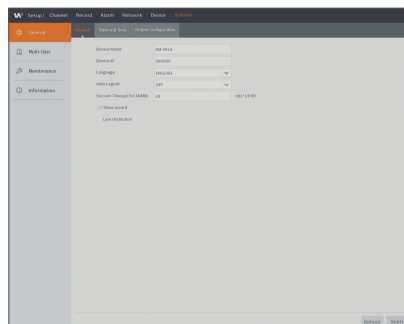
System

General

Go to "Setup" → "System" → "General" → "General" to enter into the interface.

User may set Device Name, Device ID, Language, Auto Logout, Session Timeout for ADMIN and Show Wizard on this page.

- Live restriction : If you want to use the permission setting of Live View when turning the power on/off, please check.
- Session Timeout for ADMIN : If admin user for CMS doesn't send any operation to DVR for session timeout, CMS goes to login page automatically.



Date and Time

Go to "Setup" → "System" → "General" → "Date and Time".

Date and Time

User may set Date, Time, Date Format, Time Format and Time Zone.

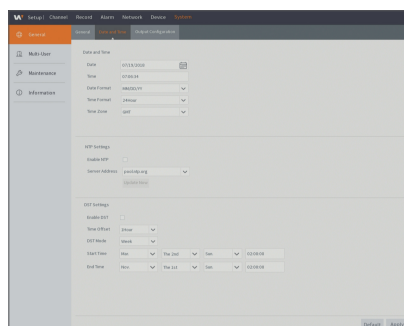
NTP Settings

- **Enable NTP** : Enable/Disable NTP function.
- **Server Address** : Select NTP server (time.windows.com, time.nist.gov, pool.ntp.org).

- ✍ ■ When NTP function is set to "Enable", system will calibrate the system time at every 00:07:50 and every start-up.

DST Settings

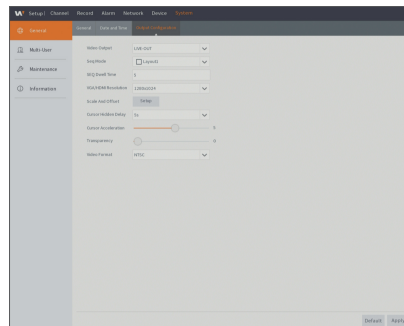
Enter into the interface to set DST, Time Offset, Start Time and End Time.



Output Configuration


Go to "Setup" → "System" → "General" → "Output Configuration" to enter into the interface.

- **Video Output** : Live Output
- **Seq Mode** : Sets the Layout1, 4 (SDR-94307) / Sets the Layout1, 4, 8 (SDR-95307)
- **SEQ Dwell Time** : Sequence time is set 5 seconds by default. User may set it as required up to 300 seconds
- **VGA/HDMI Resolution** : For VGA output or HDMI output, the optional resolution includes.
 - VGA (1024x768, 1280x1024, 1280x720, 1440x900, 1920x1080)
 - HDMI(1024x768, 1280x1024, 1280x720, 1440x900, 1920x1080, 2560x1440, 3840x2160)
- **Scale and Offset** : Sets the scale and offset.
- **Cursor Hidden Delay** : Sets the Cursor Hidden Delay time.
- **Cursor Acceleration** : Sets the cursor speed.
- **Transparency** : Adjust menu transparency in the range of 0-128.
- **Video Format** : Sets the NTSC or PAL.



Multi-User

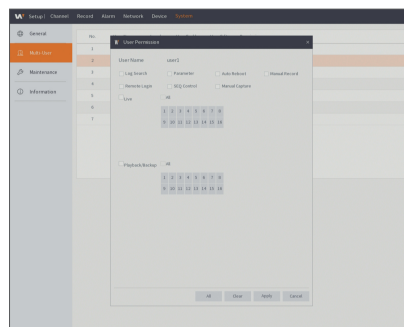
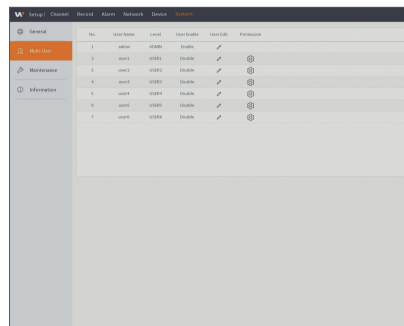
Go to "Setup" → "System" → "Multi-User" to enter into the User interface.

It supports up to seven users, including one administrator and six users. Click [] button to enter into the [User Edit] interface to input user name and password.

User Name consists of 8 characters. Password MUST be 8~13 characters long. When password is 8~9 characters long, it should be with at least a combination of letters, digits and special symbols. If it is 10~13 characters long, it should be with at least a combination of two types of characters. 4 or more contiguous or repeated characters or key arrangement are prohibited, for example 1111, 1234, abcd, qwerty.

Set user password. Administer is authorized to set user common user's authority.

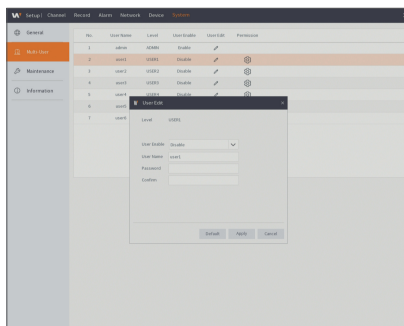
- **Log Search** : Allow you check all the system logs.
- **Parameter** : Allow you set all the parameters.
- **Auto Reboot** : Allow you to update firmware, reboot and shutdown the DVR.
- **Manual Record** : Allow you manually start/stop record.
- **Remote Login** : Allow you CMS login DVR.
 - You can only log in to the Cloud Web/Mobile with an admin account.
- **SEQ Control** : Allow you sequence live screens for all the channels.
- **Manual Capture** : Allow you to manually take a snapshot
- **Live** : Tick-select the ENABLE "√" option and select a channel and the user is allowed to view all the live images in the selected channel.
- **Playback / Backup** : Tick-select the ENABLE "√" option and select channel for playback/backup, the user is allowed to playback/backup the record in the selected channel.



DVR Menu

User Edit

User may enable or disable the function or set password.

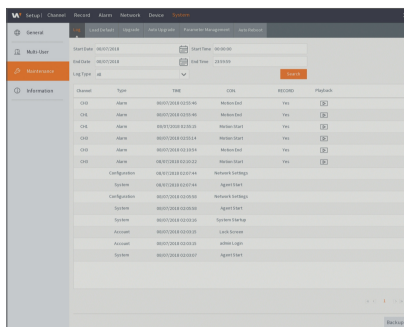


Maintenance

Log

Go to "Setup" → "System" → "Maintenance" → "Log".

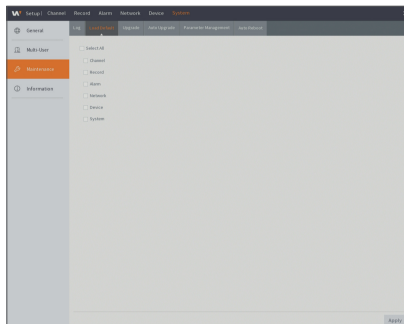
User may search log information in different period of time. Click "Backup" to save all the log information.



Load Default

Go to "Setup" → "System" → "Maintenance" → "Load Default" to enter into the interface.

If [Load Default] is selected, you can initialize the system to the ex-factory default. Click "Load Default" and select items to be restored. You can restore the Channel, Record, Alarm, Network, Device, System of wireless DVR to ex-factory default.



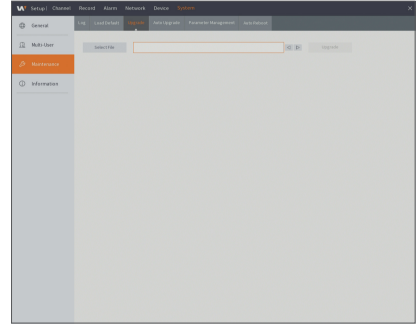
Upgrade

Go to "Setup" → "System" → "Maintenance" → "Upgrade" to enter into the interface.

Click Upgrade to enter the Device interface and select the updating file in USB to execute.

- ✍

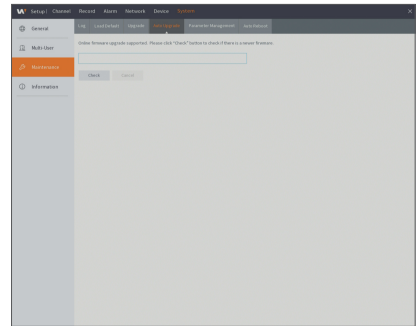
 ■ Do not take out the USB memory or cut off the power during upgrading. When the update is done, system will be automatically restarted. After about 5 minutes, the upgrading will be finished. It is recommended to load ex-factory default after upgrading.



Auto Upgrade

Go to "Setup" → "System" → "Maintenance" → "Auto Upgrade" to enter into the interface.

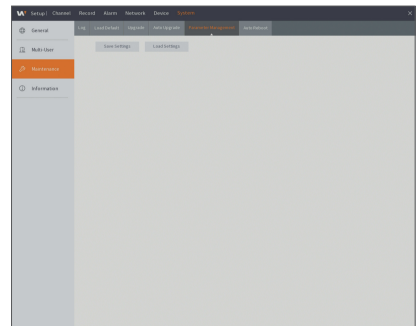
Click Check to check if there is a newer firmware on remote network upgrade server.



Parameter Management

Go to "Setup" → "System" → "Maintenance" → "Parameter Management" to enter into the interface.

- **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.




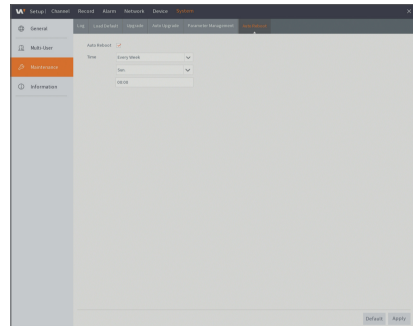
DVR Menu

Auto Reboot

Go to "Setup" → "System" → "Maintenance" → "Auto Reboot" to enter into the interface.

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.

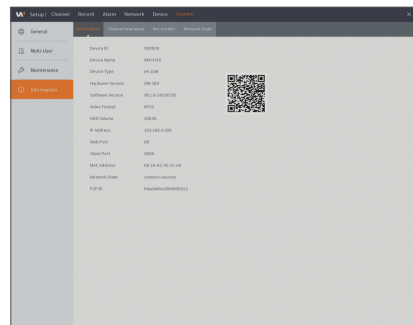
-  The auto maintain function can be effective only when DVR returns back to Preview mode with no any operation within the set auto maintain time.



Information

Information

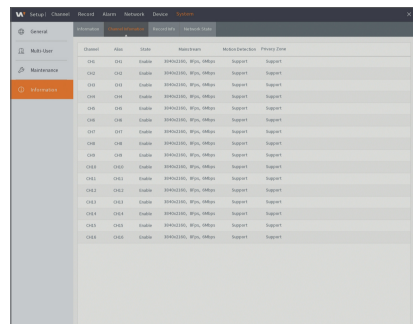
Go to "Setup" → "System" → "Information" → "Information" to enter into the interface.



Channel Information

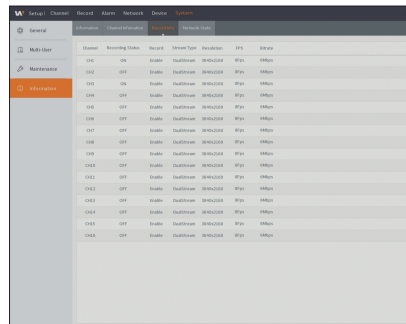
Go to "Setup" → "System" → "Information" → "Channel Information" to enter into the interface.

Displays the Channel Information.



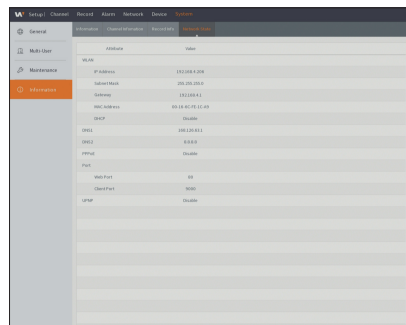
Record Information

Go to "Setup" → "System" → "Information" → "Record Info" to enter into the interface.
Displays the Record Information per channel.



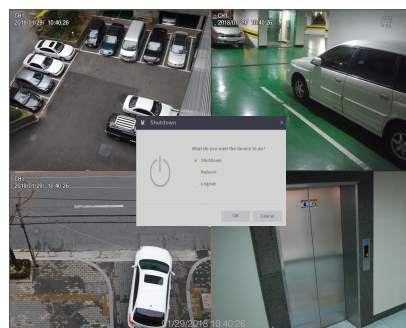
Network State

Go to "Setup" → "System" → "Information" → "Network State" to enter into the interface.
Displays the network connection status.




Shutdown


Click [] icon → "Shutdown" to enter into the interface.

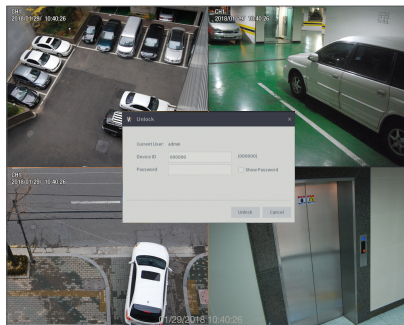


DVR Menu

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. In case that the password is forgotten, contact the technical personnel.

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



SPLIT MODE

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

RECORD SEARCH

Click [] icon on the toolbar to enter into the Record Search interface to search and playback. Refer to former section for specific operating method.

START SEQUENCE

After set channel sequence time, click Start Sequence icon [] on the toolbar to start sequence.

Search

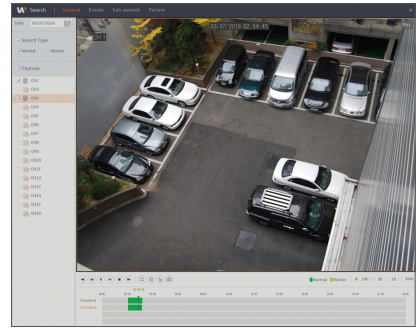
SEARCH

Record Search

General

Go to "Search" → "General" to enter into the interface.

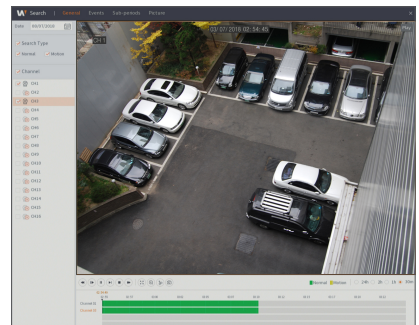
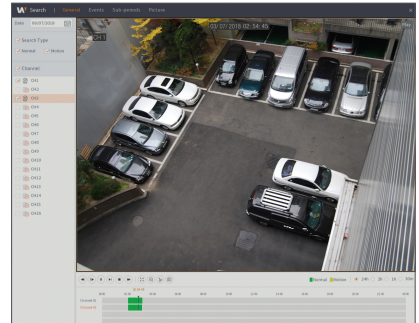
- **Channel:** Select the channel you want to search.
- **Search Type:** Select the type the playback record. There are three options: All, Normal and Motion.
- **Playback Channel:** Click a date and select corresponding channel in Playback Channel.
The selected channels must not be more than 8.
 - 8CH : Max. 4CH
 - 16CH : Max. 8CH
- **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, 1/8 and 1/16 speed), Play, Pause/Frame. When playback ends, DVR will remain in the playback interface.



Time Axis setup, file clip and zoom in/out

The DVR supports the processing control bar function when playing back record files.

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



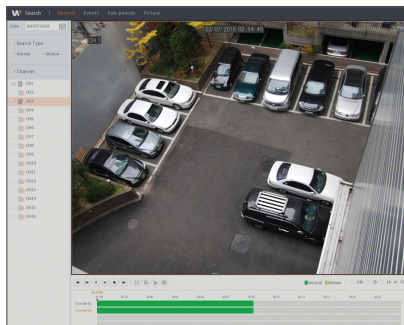
Search

• Detailed Operation

Fixed time axis: If you select [2h] option, that means the processing control bar covers two hour of video content. The time range refers to 1 hour before and after the middle point.

• **Clip and backup:** When it is playback, the [] icon will appear in the Play Control bar. Click the icon to start video clip function, click the icon again to end the function and pop up the dialog. Now, you may save the clipped video file.

• **Zoom out:** When it is under single channel playback, the [] 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.



Events

Go to "Search" → "Events" to enter into the interface.

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

◀ 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.

1 2 Jump : If you click on a number, you will move to that number's page.

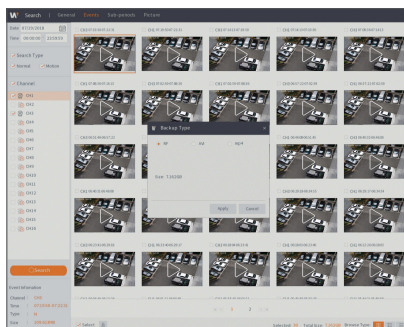
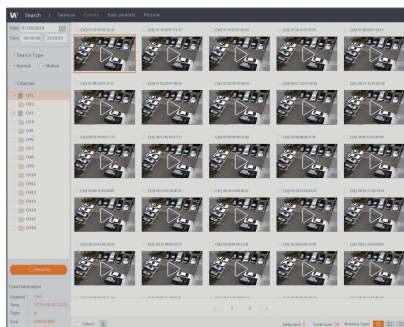
Two types of backup: Quick Backup and Backup

If you want to back up a record in the detailed file list, you may check the checkbox at the left of the record ("√" means it has been selected) and click "Backup" to enter into "Select backup type" (Make sure USB flash drive or other portable storage device are connected).

If you want to back up with USB, select USB and click OK to start processing and you will see the backup progress.

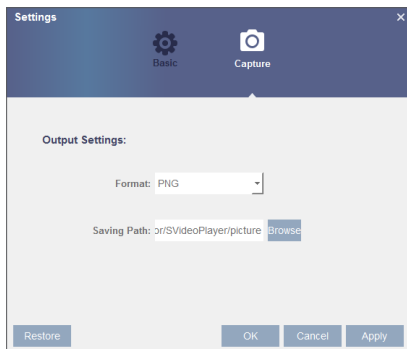
After backup finishes, message Backup Finishes will appear at down-right corner.

- ✍ Before backup, connect devices for backup (USB flash drive or other mobile storage devices with USB interface)



Search

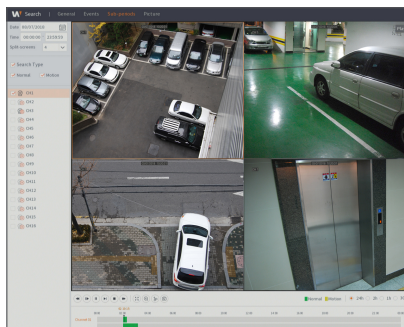
Capture Settings: Set the path to save image



- It is recommended to use SVideo Player contained in compact disk for playback. Use of any other player may cause compatibility problem.

Sub-periods

Go to "Search" → "Sub-periods" to enter into the interface.



Picture

Go to "Search" → "Picture"

Support search picture for 5000pcs each time. If the picture number greater than this value, please adjust the date (time) of the current search and search again.

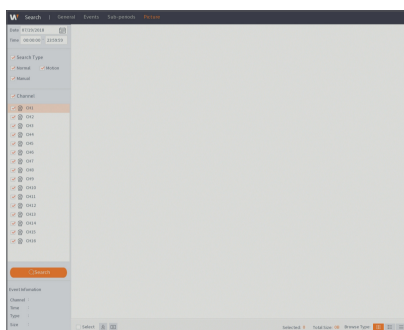
In this page, user may search details by date, time, channel and record type. The relevant operations are as follows:

⏪ 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.

1 2 Jump: If you click on a number, you will move to that number's page.

Two types of backup: Quick Backup and Backup



Appendix

TROUBLESHOOTING

Symptom	Countermeasures
What can I do if the system does not detect the HDD?	<ul style="list-style-type: none">• 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.
I have changed the password but forget the new password, how can I access the system?	<ul style="list-style-type: none">• If you forget system password, please consult with our technical personnel. We strongly suggest user to set password easily to be remembered and relatively safe.
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?	<ul style="list-style-type: none">• Check network cable on 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.
How to prevent DVR from being influenced by heat?	<ul style="list-style-type: none">• 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.
The remote controller of DVR doesn't work while the monitor screen is OK and panel keys are functional. Why?	<ul style="list-style-type: none">• 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.
I want to take out HDD from my PC and install it in DVR. Can it work?	<ul style="list-style-type: none">• All HDDs supported by the system can be used. But remember, once DVR runs, the data on your HDD will be lost.
Can I playback while recording?	<ul style="list-style-type: none">• Yes. The system supports the function of playing while recording.
Can I clear some records on HDD of DVR?	<ul style="list-style-type: none">• 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.
Why can't I log in DVR client?	<ul style="list-style-type: none">• Please check if the network connection settings are correct and check if your account and password are correctly input.
Why can't I find any records during playback?	<ul style="list-style-type: none">• 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.
Why doesn't dynamic detection work?	<ul style="list-style-type: none">• Please check if the motion detection sensitivity level set is too low and motion detection area setting is correct.
Why does buzzer keep alarming?	<ul style="list-style-type: none">• Please check the alarm setting, check if motion detection function is enabled and object motion is detected all the time. Besides, refer to corresponding HDD alarm setting.

Appendix

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 video cable, 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 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. This is A class product. it maybe bring wireless interference in life. Under this situation, it need user to make measures.

SPECIFICATIONS

Item	Details		
	SDR-94307	SDR-95307	
Description			
Video	Inputs	8CH BNC	16CH BNC
	Resolution	3840x2160 (8MP)	
Live	Frame rate	Max 120fps@8MP	Max 240fps@8MP
	Resolution	3840x2160 (8MP)	
	Multi Screen display	1/4/8/9/10/13/14/16/SEQ	
Performance			
Operating System	Linux		
Installation wizard	Support		
Recording	Compression	H.264/265, JPEG (for Amazon Rekognition)	
	Recording bandwidth	Max. 48Mbps	Max. 96Mbps
	Frame rate	Dual track recording	
		- Main stream : Max 8fps@8MP/CH Max 8fps@5MP/CH Max 8fps@4MP/CH Max 8fps@2MP/CH	
		Sub stream : 10fps@1280x720 / CH Bitrate 512kbps	
	Mode	Manual, Schedule (Continuous/Event), Motion Detection(Pre/Post)	
	Event type	- MD(Sensitivity Level 1~8) - Video loss - HDD (Full, Failure)	
	Cloud recording channel	2CH	
	Cloud recording profile	8fps@1280x720 / CH, Bitrate 512kbps	
	Motion Zone	Up to 4 (RECT)	
	Privacy Zone	Up to 4 (RECT)	
	Overwrite modes	Off/On	
	HDD full event	Beep, Email : OK, Push notification to Mobile APP : No	
	Pre-event	Max. 8sec for 8MP@6Mbps	
Post-event	Up to 5min (30 sec, 1/2/5min)		

Appendix

Item		Details	
		SDR-94307	SDR-95307
Search & Playback	Playback bandwidth	Max. 24Mbps	Max. 48Mbps
	Search mode	Date,Time/Event	
	Playback function	<ul style="list-style-type: none"> - Stop, Pause, Play - Fast forward / backward (2x, 4x, 8x, 16x) - Slow forward (1/2x, 1/4x, 1/8x, 1/16x) - Step forward / backward 	
	Playback frame rate	<ul style="list-style-type: none"> - Single channel view : Max. 8fps@8MP/CH - Multi channel view : Max. 8fps@8MP/CH (up to 4CH) 	- Multi channel view : Max. 8fps@8MP/CH (up to 8CH)
Network	Transmission bandwidth	Total 96M	Total 128M
	Max. remote users	1 (Admin only)	
	Live stream	<ul style="list-style-type: none"> - Main stream : Max. 8fps@8MP/CH - Sub stream : 10fps@1280x720/CH, Bitrate 512kbps 	
	Protocol support	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, DHCP, SMTP, DNS, DDNS, UPNP	
Local/Remote	SET UI	UI v5.0 (/w GUI customization)	
Monitoring	CMS	Wisenet Client (/w GUI customization, P2P support)	
	Remote Maintenance	TEAMVIEW (/w GUI customization)	
	Mobile viewer	WisenetLife (Mobile)	
	Web viewer	WisenetLife (Web) - Chrome, Safari	
Etc	Cloud recording	via Techwin Cloud server	
	Colud features	SimpliSearch, Timelapse	
	Push notification	via Techwin Cloud	
	P2P easy connection	via Techwin Cloud	
	Dropbox	support (dropbox API 2.0)	
	FW upgrade	<ul style="list-style-type: none"> - Network upgrade via Techwin webserver - USB upgrade via download 	
Storage	Internal HDD	SATA HDDx1 (Max. 6TB)	
	USB (Back-up)	2 Ports for USB memory (not included)	
	File Format (Back-up)	RF, AVI, MP4	

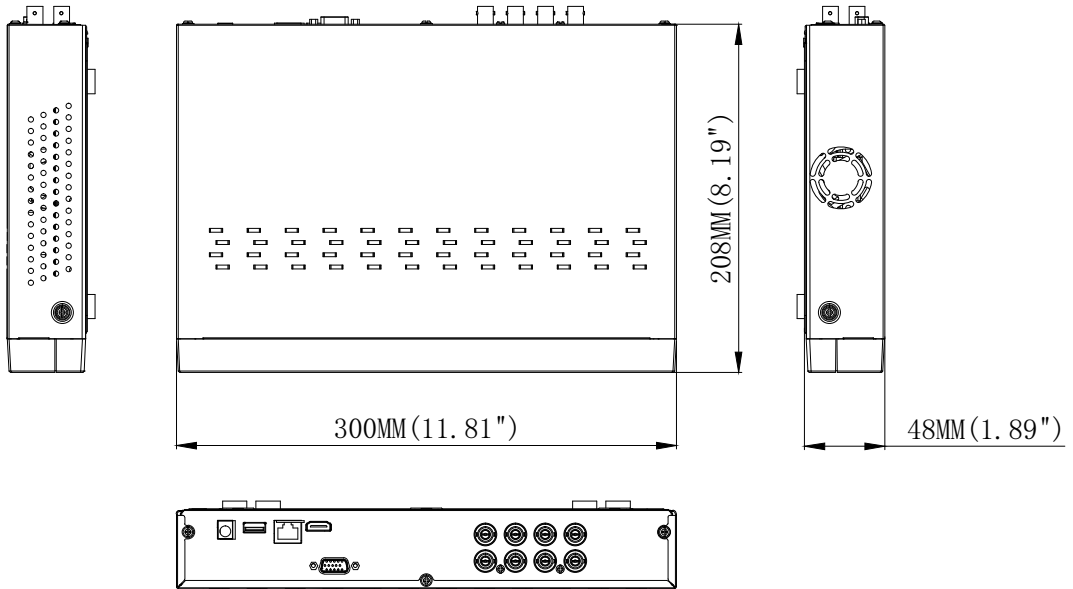
Item	Details		
	SDR-94307		SDR-95307
Interface			
Monitors	VGA	1 VGA (1024x768, 1280x1024, 1280x720, 1440x900, 1920x1080)	
	HDMI	1 HDMI (1024x768, 1280x1,024, 1280x720, 1440x900, 1920x1080, 2560x1440, 3840x2160) ※ EDID (monitor resolution auto detection)	
	Simultaneous Output	Support (HDMI and VGA)	
Connections	Ethernet	1 RJ45 10/100/1000 Base-T	
	USB	USB3.0x1, USB2.0x1 (for mouse and backup/upgrade)	
	Application Support	Mouse, Remote control	
General			
Color / Material		Black / Metal	
Electrical	Input Voltage/Current	12V/2A	12V/3A
	Power consumption	10.5 W	15 W
Environmental	Operating Temperature/ Humidity	Temperature : 0°C~+40°C (32°F ~ 104°F) Humidity : 20% ~ 85%RH	
Mechanical	Dimension (WxDxH)	W300xD227xH53mm(11.81" x 8.94" x 2.09")	W300xD302xH53mm(11.81" x 11.89" x 2.09")
	Weight (With hard disks)	1.5kg	2.1kg
OSD Language		English, French, Spanish, Portuguse, German	

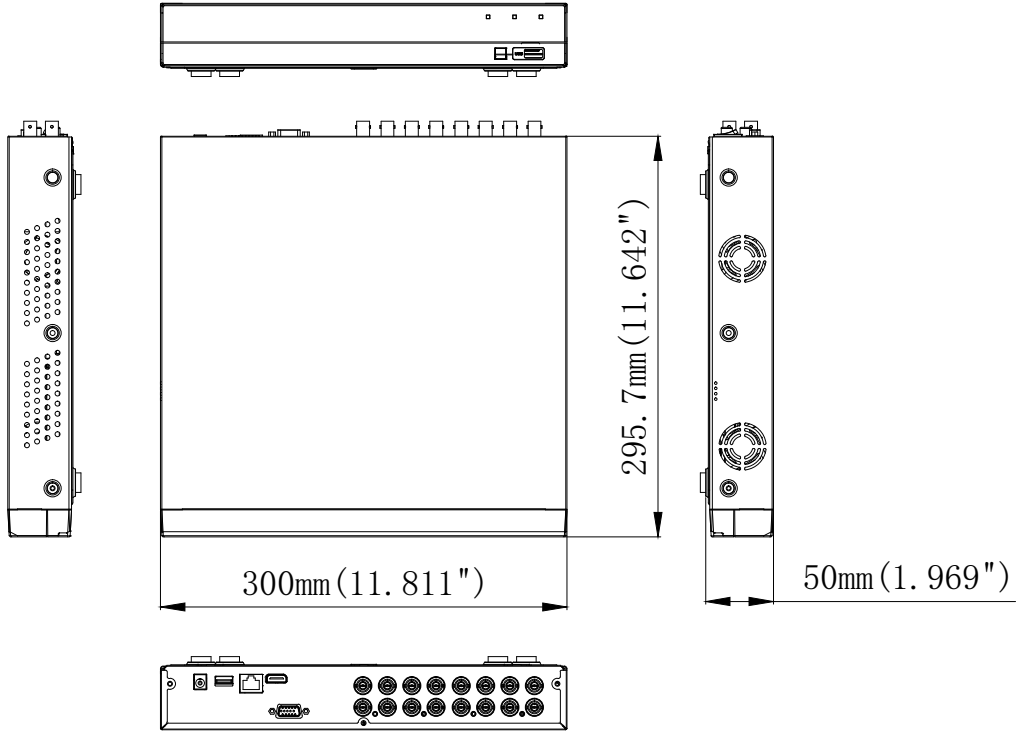
Appendix

DIMENSION

SDR-94307

Unit: mm (inch)





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If such an object file uses only numerical parameters, data structure

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