KGUARD SECURITY ®

EN **USER MANUAL**

HD Series

Default user name: admin
Default password: 123456

About this Manual

The material in this document is for information purpose and is subject to change without prior notice. We made every effort to ensure that this user's manual is accurate and complete. However, no liability is assumed for any errors and omissions that may have occurred.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the product and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Declaration of Conformity

Declaration of Conformity

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Copyright

Limitation of Liability

- This publication is provided "AS IS" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability, fitness for any particular purpose, or non-infringement of a third party's rights.
- This publication may include technical inaccuracies or typographical errors. Changes may be made to the information herein, at any time, for publication improvements and/or of the corresponding device(s).

Disclaimer of Warranty

In no event shall the supplier be liable to any party or any person, except for replacement or reasonable maintenance of the product, for the cases, including but not limited to the following:

- Any damage or loss, including but without limitation, direct or indirect, special, consequential or exemplary, arising out of or relating to the device;
- Personal injury or any damage caused by inappropriate use or negligent operation of the user;
- Unauthorized disassemble, repair or modification of the device by the user;
- Any problem, consequential inconvenience, or loss or damage, arising out of combining the system with the devices of a third party;
- Any claim or action for damages, brought by any person or organization being a photogenic subject, due to violation of privacy with the result of pictures from a surveillance camera, including saved data, for some reason, becomes public or is used for the purpose other than for surveillance.

Safety Information

⚠ Warning	⚡ Caution
This is the symbol for indicating any potential hazard, risk or condition requiring special attention. The user needs to refer to the important operating and maintenance or servicing instructions.	The lighting flash with an arrow head symbol, in an equilateral triangle, is intended to alert the user. There is dangerous "voltage" presence near by the product's enclosure which may be risk of person.

Safety Precautions

- **Do not touch live electrical parts.**
  Electric shock can be avoided. Follow the recommended practices listed below. Faulty installation, improper grounding, and incorrect operation and maintenance of electrical equipment are always sources of danger.

- **Do not try to install equipment outdoor, during strong wind and rain.**

- **Do not install or remove equipment outdoor, when raining.**

- **Do not try to install or operate any equipment, during a thunderstorm.**

- **Always ground all electrical equipment and the work platform.**
  Prevent accidental electrical shocks. Connect power source, control cabinets, and work platform to an approved electrical ground.

- **Always use the correct cable size.**
  Sustained overloading will cause cable failure and result in possible electrical shock or fire hazard. Work cable should be the same rating as the factory.

- **Always keep cables and connectors in good condition.**
  Improper or worn electrical connections can cause short circuits and can increase the chance of an electrical shock. Do not use worn, damaged, or bare cables.

- **Always avoid open-circuit voltage.**
  The added voltages increase the severity of electric shock hazard.

- **Always wear insulated gloves while you adjust equipment.**
  Electric power should be turned off and insulated gloves should be worn when making any equipment adjustment to assure shock protection.

- **Always wear protective clothing such as long sleeve shirts while you are installing or removing equipment.**

- **Always wear high, snug fitting shoes.**

- **Always wear clean clothes without grease or oil.**

- **Protect neighboring workers from exposure to arc radiation.**

- **Always wear long trousers or jeans while you are installing or removing equipment.**

- **Always wear safety helmet or hard hat and safety shoes before work.**

- **Always keep the equipment in dry places.**

- **Always wear safety harnesses/belt while you work in high places.**

- **Always wear dry clothing and avoid moisture and water.**

- **Always wear Public Safety Vest, while you work at night.**

- **Make sure all electrical connections are tight, clean, and dry.**

- **Make sure that you are well insulated to eliminate electric static charge.**

- **Always wear dry gloves, rubber-soled shoes, or stand on a dry board or platform.**

- **Always follow recognized safety standards.**

- **Always wear correct eye, ear, and body protection.**

- **Always have second person on-site, while you work in dark, poor ventilation, or high places.**

- **Make sure that you are well protected against arc flashes, mechanical injury, or other mishaps.**

- **Make sure that the polarity of wire is correct before installing equipment.**

- **Always handle equipment with care.**

- **Do not block the ventilation of equipment.**

- **Do not put the magnetic parts around the equipment.**

- **Do not put the objects on top of the equipment.**

Table of Contents

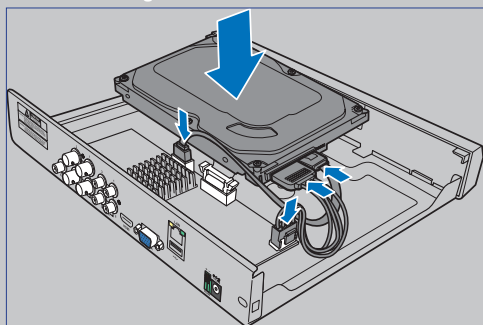# Install the Hard Disk Drive

This DVR supports one 3.5" or 2.5" SATA HDD.

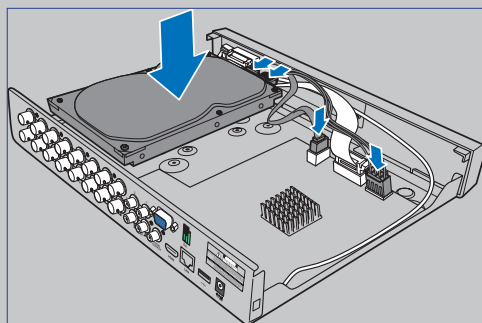**CAUTION:** **DO NOT install or remove the hard disk drive while the device power is turned ON**.

NOTE: *Depending on the model you purchased, the actual product may slightly differ from the images below.*

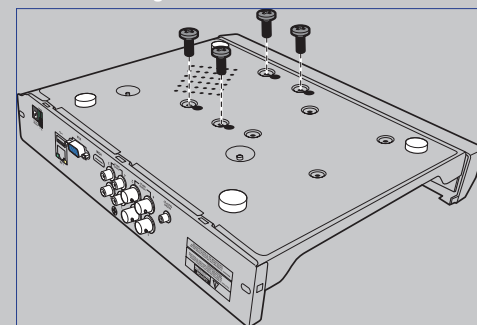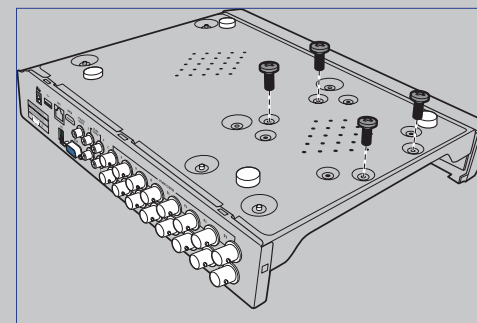**a)** Connect the data and power cables to the HDD and place the HDD on the DVR case.

b) Carefully flip the DVR case and secure the HDD to the DVR with the four (4) screws.

4/8-Channel DVR

4/8-Channel DVR

16-Channel DVR

16-Channel DVR
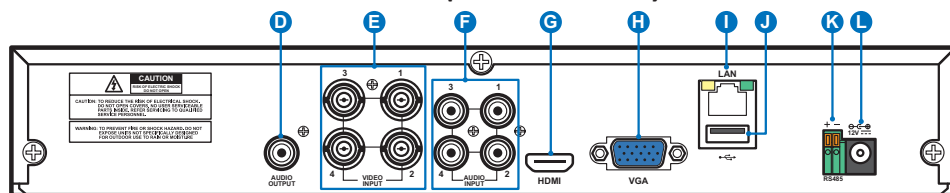
Hybrid DVR (HD Series)

Making the Connections

Product Overview

NOTE: *The front view of the product is similar for 4-channel, 8-channel, and 16-channel DVR.*
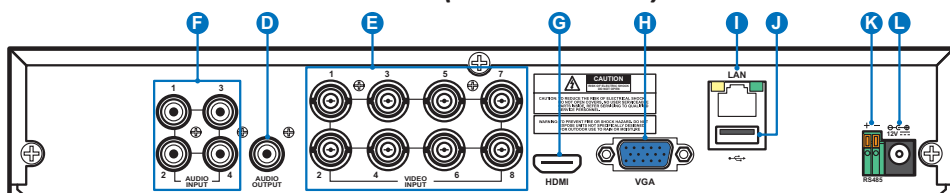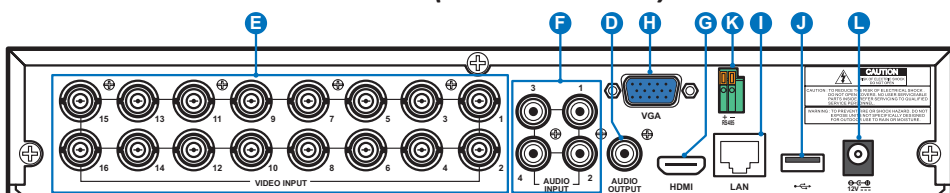
Front View (4-Channel DVR*)

Rear View (4-Channel DVR)

### Rear View (8-Channel DVR)

Rear View (16-Channel DVR)

A) HDD LED - This will flash when the hard drive is working.

B) Power LED - This light will turn on when the DVR has power.

C) USB - Connect the supplied mouse here.

D) Audio Out - For connecting speakers.

E) Video In - This is where you connect the cameras.

NOTE: *To ensure the image quality, we recommend you to use the supplied KGUARD cameras, or purchase separately KGUARD Megapixel CCTV Cameras.*

F) Audio In - For connecting microphones.

G) HDMI - Connect this to your digital TV or monitor with HDMI input.

H) VGA - Connect this to your TV or a monitor with VGA input.

I) LAN - Connect this to your home network, so that your DVR can be accessed through Internet. In addition to connecting to a network, you can also access the local or remote ONVIF IP cameras.

J) USB - Connect the USB flash drive to backup recorded events.

K) RS485 - Connects to a Speed dome camera via RS485.

L) Power - This is where you connect the power adapter.

Hybrid DVR (HD Series)

Connection Diagram
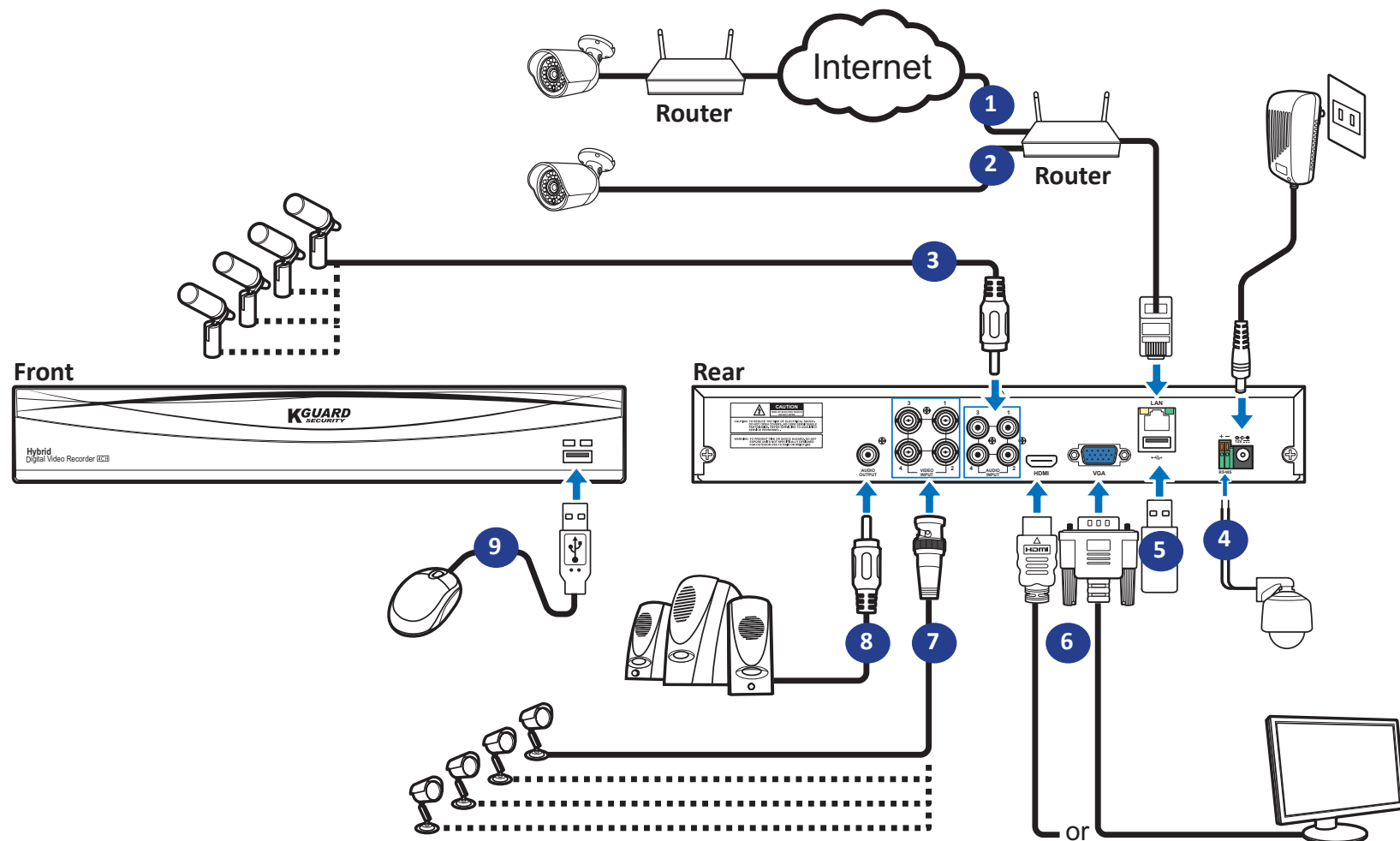
1) You can connect to other IP cameras remotely over the Internet.

2) Connect a CAT.5E or higher RJ45 Ethernet cable for local connectivity. You can connect to other IP cameras through your local network.

> **NOTE:** *To view the ONVIF IP camera(s), you need to add the camera(s) first via OSD menu. Please see "Display: IP Channels / Image Control" on page 13.*

3) Connect the microphone(s) and/or audio-supported camera(s), if you want to listen to the audio sound from the cameras.

4) Connects to a Speed dome camera via RS485.

5) Use the USB flash disk for backup or system upgrade.

6) Connect the video output of the DVR to the TV or monitor via HDMI or VGA connection.

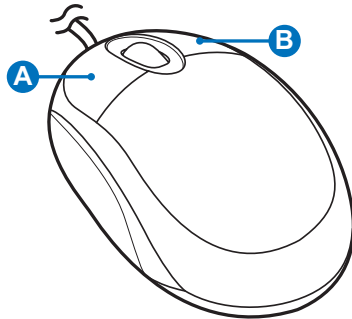7) Connect the BNC plug of the camera's extension cable to the Video input connector on the rear of the DVR.

> **NOTE:**
> -*Please make sure analog channels are enabled. See "Display: Analog Channels / Output" on page 11.*
> -*This DVR supports cameras with UTC function (Nextchip Coaxial Protocol).*

8) Connect speakers if you want to listen to the live audio sound or audio playback from the DVR.

9) You need the USB mouse to go through the initial setup menus once the DVR is powered on.

Hybrid DVR (HD Series)

Common DVR Operations

Using the Supplied Mouse

A) Left Button	B) Right Button
– **Click once** to choose an item in the menus and confirm your selection.	– **Click once** to open the pop-up menu on the Live Viewing screen and to exit from the menus.
– **Double-click** on the channel on the Live Viewing screen to view the channel in full screen mode. Double-click again to exit the full screen mode.	
– **Click and hold** to drag an area on motion mode or adjust the values of sliders and scales on menu mode.	

Using the Virtual Keyboard

You will see the virtual keyboard automatically on the screen anytime you need to enter data.

Click to delete a character

Click to enter the text

Click to toggle the keyboard to upper case

Locking the Screen

The screen is locked to protect unauthorized OSD operation. To access the OSD menu, you need to authenticate yourself by providing the user name and password.
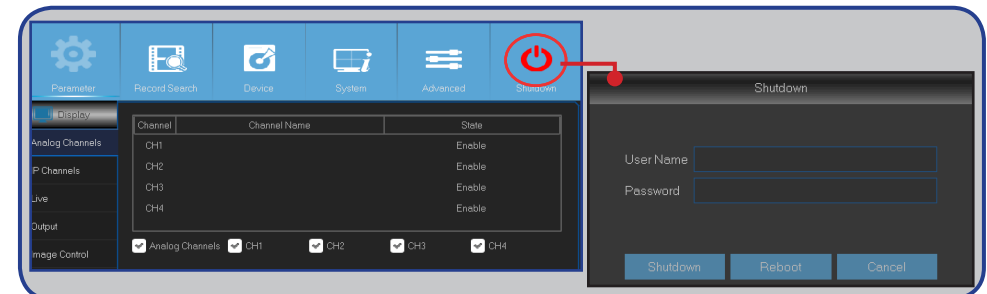
The default user name and password are as below:

- **User name**: **admin**
- **Password**: **123456**

NOTE: *If necessary, you can also lock the screen manually. To do so, right-click on the Live Viewing screen to make the Pop-up menu bar visible. Then click* 🔓 *.*
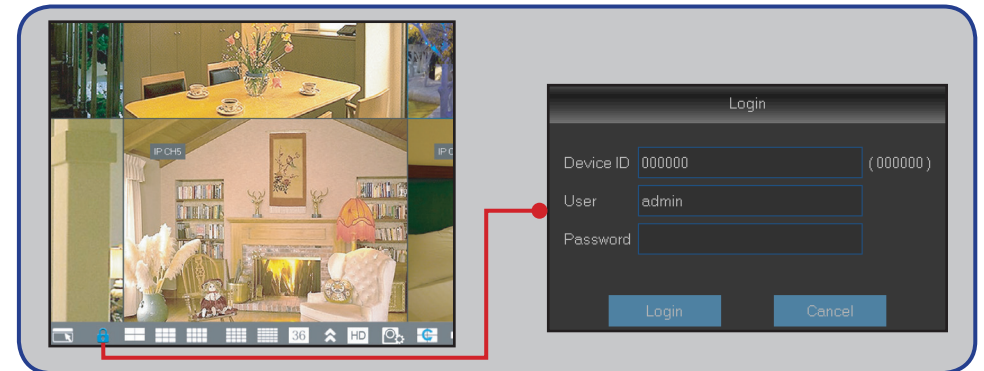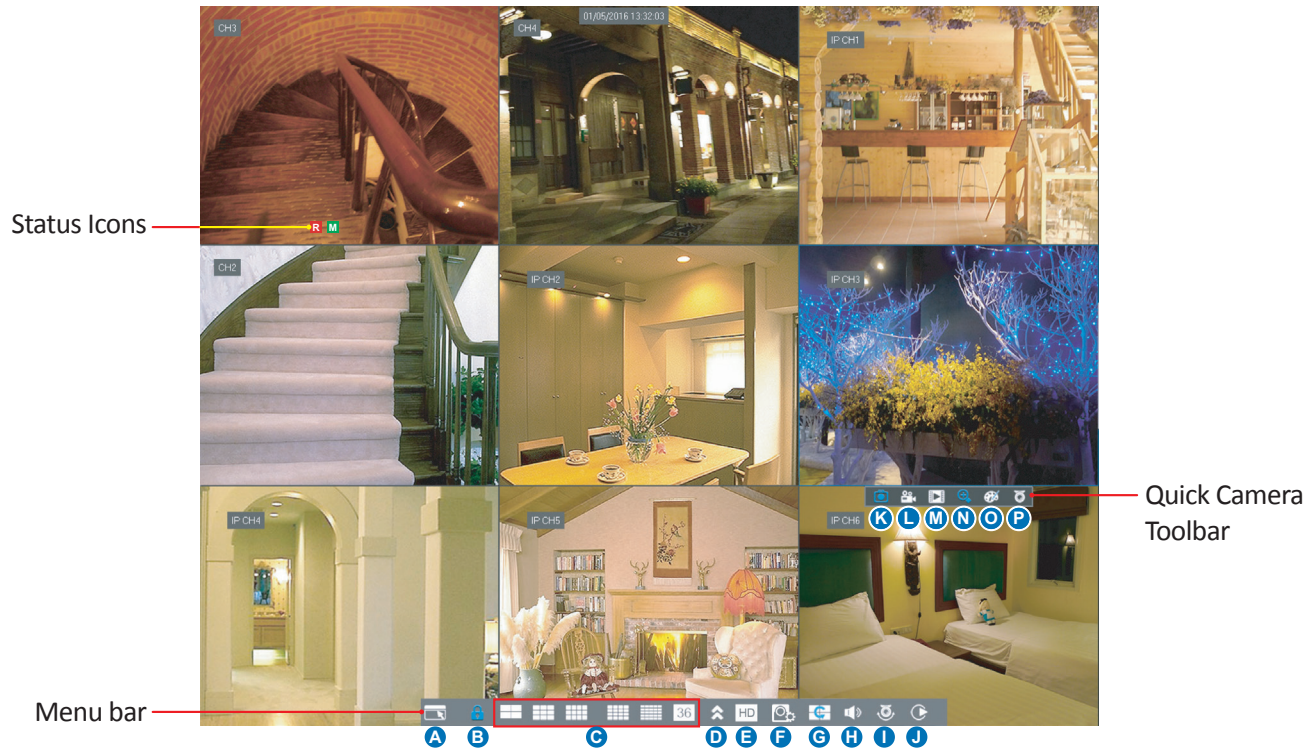
Rebooting/Shutting Down the DVR

Rebooting and shutting down operations can be performed via the Main Menu.

Live Viewing Screen

First screen you see after going through or skipping the Startup Wizard. On this screen, you see the live views from all connected cameras. The view varies depending on the DVR model you purchased.

Status Icons

Quick Camera Toolbar

Menu bar

Menu Bar

A) Click this to open the Main Menu.

B) Click this to lock the screen.

C) Click this to switch to different camera views.

D) Click this to view more layout options.

E) Click this to switch all channels to mainstream or substream (for live view resolution).

F) Click this to switch between realtime, balanced, or smooth view. The view effect modes influence only the displayed video quality by bit rate and frame rate but do not influence the recording quality.

G) Click this to start viewing channels in a sequence set in **Display: Output**. Please see page 11.

H) Click this to adjust the volume.

I) Click this to start / stop cruise for a PTZ camera.

**J)** Click this if you want to playback videos.

Status Icons

M The motion icon indicates that the DVR is detecting motion from the camera.

H The HDD icon indicates that the DVR cannot detect a HDD or the HDD is not formatted.

R This indicates that the DVR is currently recording.

M This icon appears when the camera has detected motion and triggers recording.

VIDEO LOSS: Connection to the camera has been lost.

Off-line: The added IP camera is offline or disconnected.

No Camera: IP Camera has not been connected to the DVR.

Quick Camera Toolbar

K) Click this to manually capture an image.

L) Click to start recording the channel manually.

M) Click to review the channel playback of the recent 5 minutes recording.

N) Click to zoom in the channel.

O) Click to adjust the channel color settings.

**P)** Click to configure the camera PTZ settings.

Main Menu
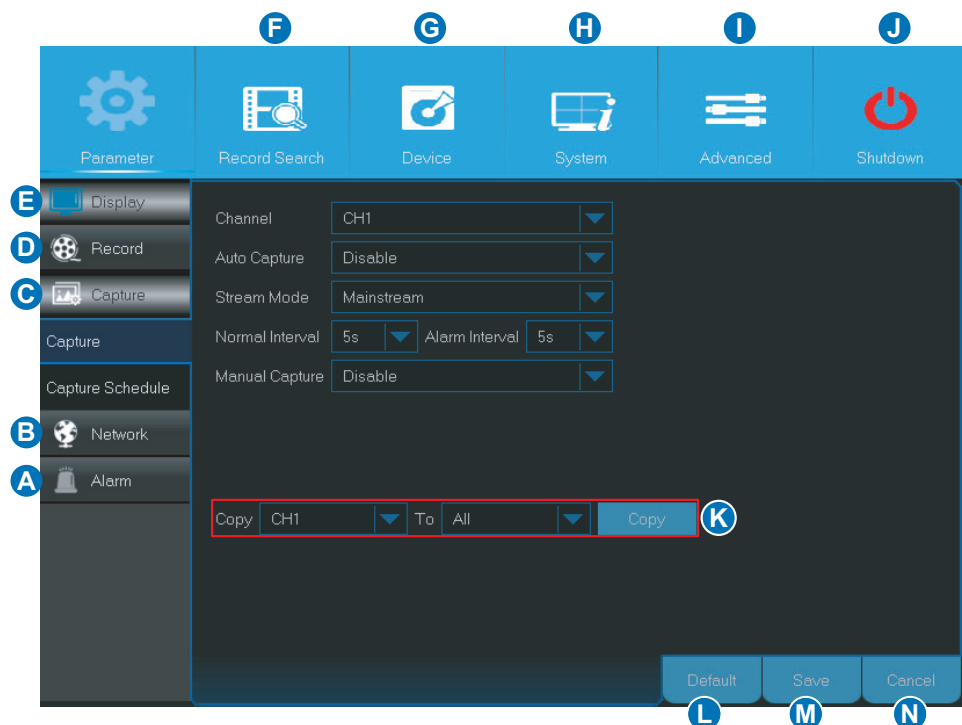
A) Alarm - Select this menu option to set the motion area and sensitivity.

B) Network - Select this menu option to configure the DVR's access parameters to the network, configure email settings, and DDNS parameters.

C) Capture - Select this menu option to capture images.

D) Record - Select this menu option to configure the recording options and set the recording schedule.

E) Display - Select this menu option to configure how channels are displayed on the Live Viewing screen, for example color setup, video output resolution, privacy areas, etc.

F) Record Search - Select this menu option to search for recordings, events, and captured images.

G) Device - Select this menu option to format the internal HDD here, view available space, set the PTZ configuration parameters, and connection parameters to link your DVR to your Dropbox account.

H) System - Select this menu option to modify general DVR settings, such as date and time, etc.

I) Advanced - Select this menu option to modify maintenance tasks and update the system.

J) Shutdown - Select this menu option to shutdown or reboot the DVR here.

K) Copy (Parameters) To - Click to copy the current settings to all channels or one specific channel.

L) Default - Click to restore the default settings.

M) Save - Click to save the modifications.

**N) Cancel** - Click to discard the modifications.

This menu allows you to enable or disable the analog channels.
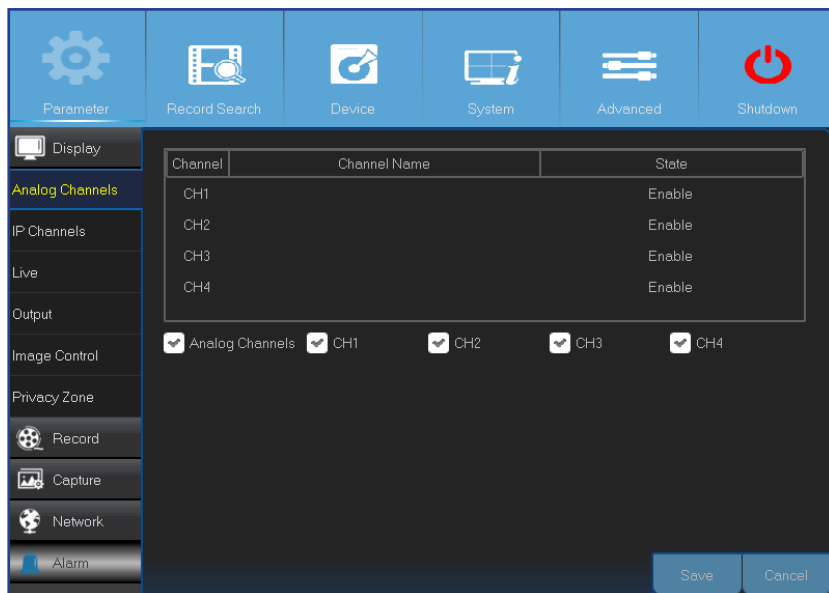
- **Channel**: Display channel identification.
- **Channel Name**: Display the channel name.
- **State**: Display the channel status.
- **Analog Channel**: Click on the checkbox next to the channel identifier to enable or disable the analog channel.

NOTE: *After making modifications to the channel status, click Save to save the changes. You are prompted to confirm the modifications. Click OK to confirm.*
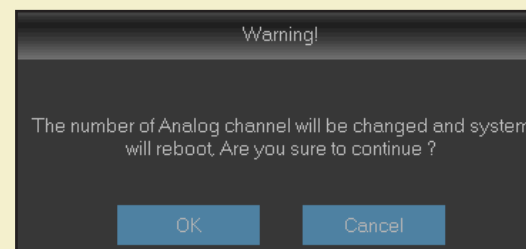

This menu allows you to configure video output parameters.
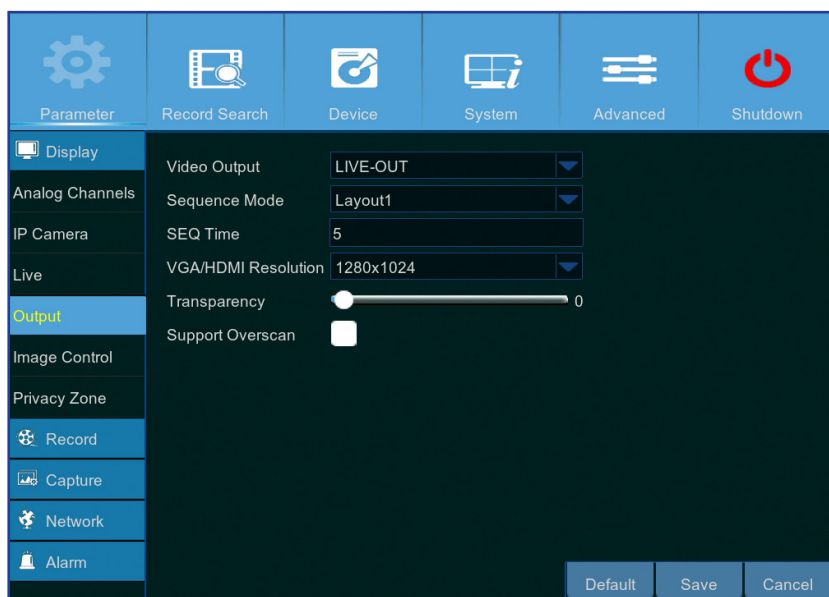
- **Video Output**: This is the monitor that you use for live view display.
- **Sequence Mode**: Choose your favorite layout from the drop-down menu for viewing channels in a sequence on live view.
- **SEQ Time:** Set how long you want the live view from a channel to be displayed in a sequence.
- **VGA/HDMI Resolution**: Select the highest resolution your monitor/TV supports. The higher the resolution, the more details you will see on your images. The DVR will restart after you change the resolution.
- **Transparency**: Decide how transparent you want the menus to be. Choose partially transparent (see-through) if you need to keep an eye on happenings while adjusting settings.
- **Support Overscan**: Check to allow adjusting the position of the video image on the live viewing screen.
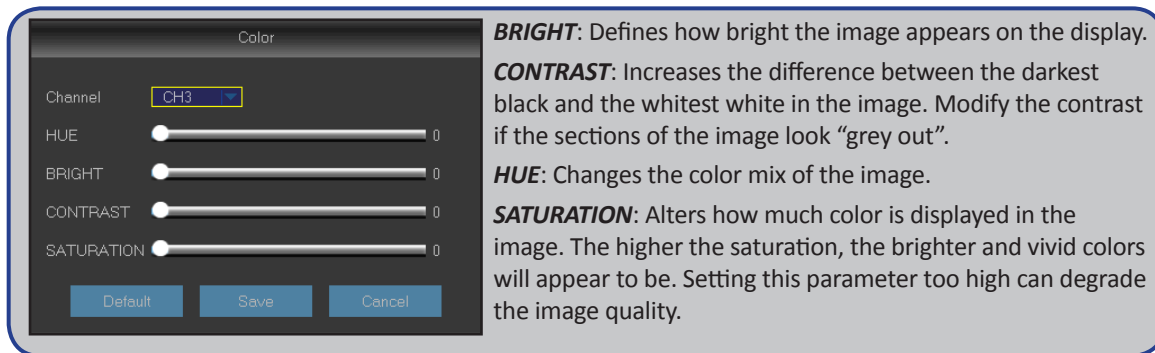
This menu allows you to configure channel parameters.
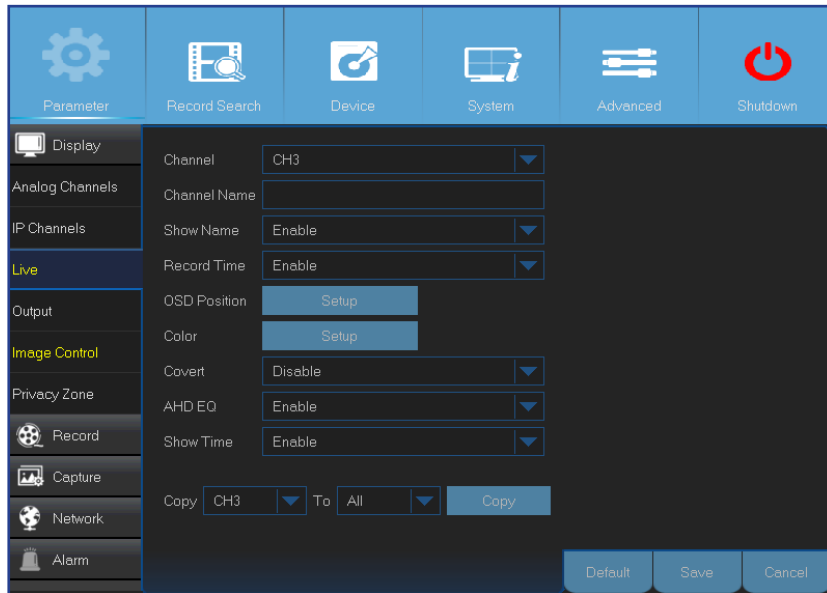
- **Channel**: Select the channel you want to modify.
- **Channel Name**: Enter the name of the channel.
- **Show Name**: Enable to display the channel name on the live screen.
- **Record Time**: Disable if you do not want to see the recording time on the channel.
- **OSD Position**: Click **Setup** to determine where you want the channel name and current date to be displayed when you are viewing the channel. Drag the channel name box and the date/time box to the desired location on the channel view.
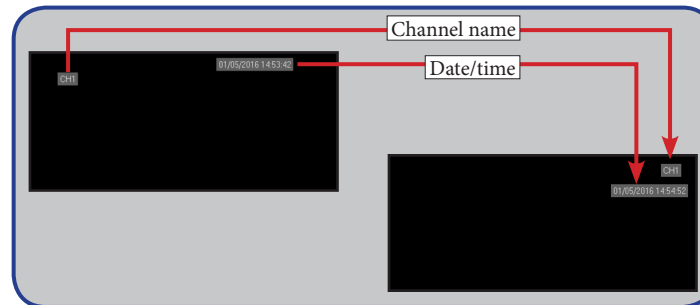
- **Color**: Click **Setup** to configure video color settings.

BRIGHT: Defines how bright the image appears on the display.

CONTRAST: Increases the difference between the darkest black and the whitest white in the image. Modify the contrast if the sections of the image look "grey out".

HUE: Changes the color mix of the image.

SATURATION: Alters how much color is displayed in the image. The higher the saturation, the brighter and vivid colors will appear to be. Setting this parameter too high can degrade the image quality.

- **Covert**: Enable if you want to hide this channel from appearing on the Live Viewing screen. Disabling or enabling this option does not affect video recording on the HDD.
- **AHD EQ**: Enable or disable AHD EQ (Enhanced Quality) function. Configure this parameter if you are an advanced user.
- **Show Time**: Disable if you do not want the current time to appear on the channel.

Display: IP Channels / Image Control

This menu allows you to add and modify IP cameras configurations.
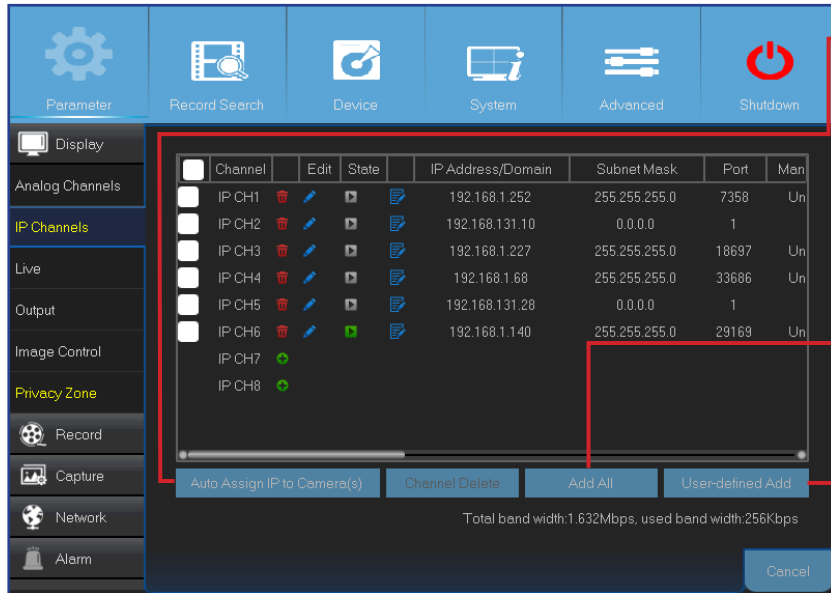
- **Auto Assign IP to Camera(s)**: Click to reassign an IP address to the IP camera that is already connected to the DVR.
- **Add All**: Click to add local ONVIF cameras (DVR and IP cameras are connected to the same router). To complete the connection, enter user name and password of the IP camera, and click **OK**.
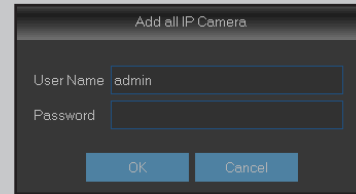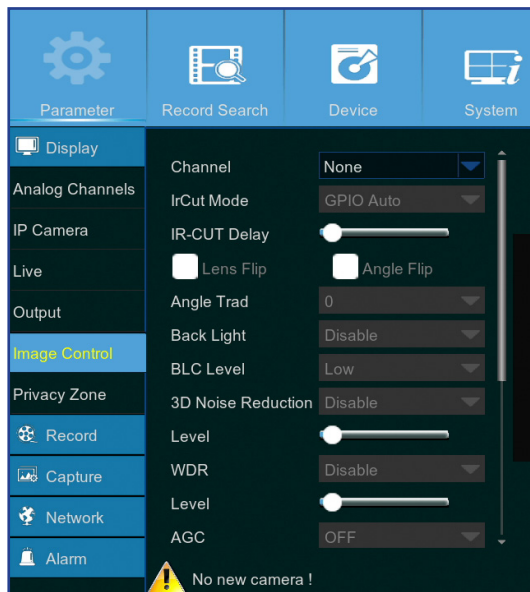
- **User-defined Add**: Click to add remote ONVIF cameras over the Internet.
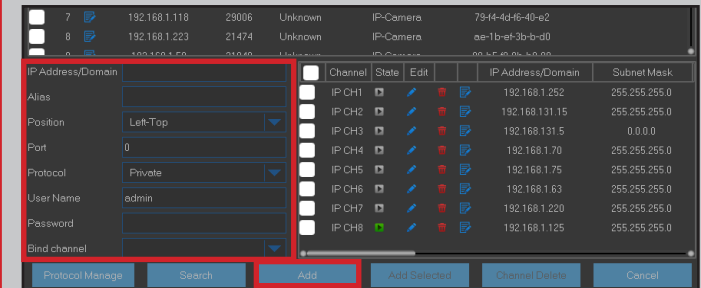
Enter the connection parameters of the IP camera: **IP Address/Domain**, **Port**, **Protocol**, **User Name**, and **Password**. Then click **Add**.

This menu allows you to configure the camera settings. Some IP cameras may not support this feature and the IP camera settings cannot also be changed using the DVR.

- **Channel**: Select the channel you want to modify.
- **IrCUT Mode**: Select the desired built-in filter switch-over mode to ensure the camera works properly both in the daylight and night.
- **IR-CUT Delay**: Set the IR-CUT switching time delay.
- **Lens Flip/Angle Flip**: Check to enable automatic lens flip and/or angle flip.
- **Angle Trad**: Set the flip angle.
- **Back Light**: Enable this feature to compensate the darkness of the subject when shooting against bright light sources. For example, sunlight.
- **BLC Level:** Set the backlight compensation level.
- **3D Noise Reduction**: Enable this feature to digitally minimize video noise and extend the DVR storage.
- **Level**: Set the noise reduction level.
- **WDR (Wide Dynamic Range)**: Enable to allow automatically adjust the brightness and contrast of the

video when shooting in the darkness with bright light sources.

- **Level**: Set the WDR level.
- **AGC (Automatic Gain Control)**: Configure when shooting in changing lightning environments. The video image is brightened in dark areas.
- **White Balance**: Choose the white balance level between Auto (automatic adjustment), Manual (manual adjustment of red and blue gain), indoor (optimized according to the indoor environment).
- **Red/Green/Blue**: Adjust the red/green/blue value.
- **Shutter**: Set the shutter mode.
- **Time Exposure**: Choose the exposure time of the camera.
- **Defog Mode**: Use in foggy environments to improve the video quality.
- **Level**: Set the defog level.

Display: Privacy Zone

This menu allows you to create Privacy Zone(s) if you want to partially cover up part of the image. You can create up to four privacy zones in any size and location on the channel view. These zone(s) appear as "red box rectangle areas". Just click inside the default red-lined rectangle and drag it where you want to create a privacy zone.
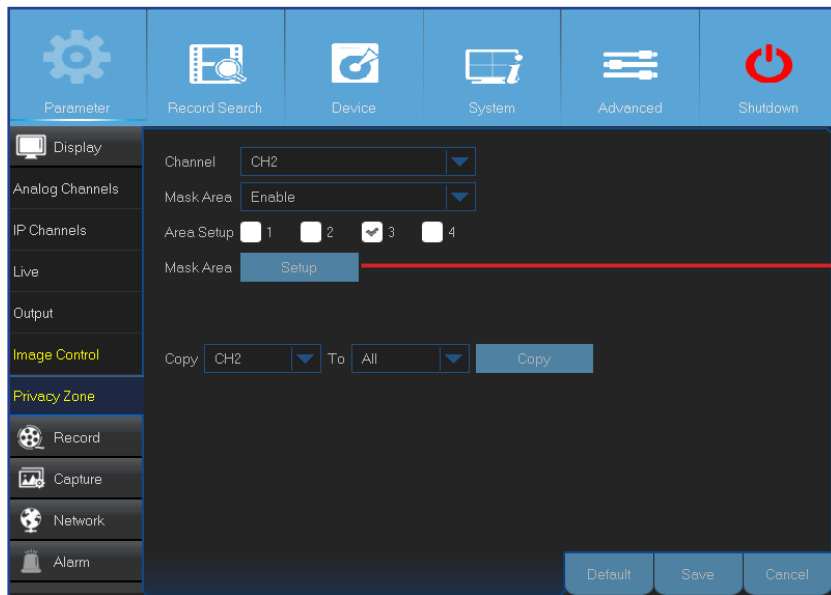
- **Channel**: Select the channel(s) where you want to set privacy zone(s).
- **Mask Area**: You need to enable this function to set privacy areas.
- **Area Setup**: Decide how many privacy areas you want to set and check the area(s).
- **Mask Area**: Click **Setup** to open the channel in full screen mode and start marking the privacy zones. Depending on the number of areas you have chosen in **Area Setup,** you will see areas covered with black rectangles on the channel view. When you have finished marking the areas, right-click to return to the Main Menu.

NOTE: *The privacy zone(s) are not visible on channel live view as well as on the video file. On live view and video file, you can see the privacy zone(s) covered with black boxes.*

Hybrid DVR (HD Series)

14

Record: Record & Mainstream

This menu allows you to configure the channel recording parameters.

- **Channel**: Select the channel to set its recording parameters.
- **Record Switch**: Enable in order to allow the video to be recorded to the HDD.
- **Stream Mode**: Choose the recording resolution. The available options are Mainstream and Substream.
- **PreRecord**: If this option is enabled, the DVR starts recording a few seconds before an event occurs. Use this option if your primary recording type is motion based.

This menu allows you to configure the recorded video parameters. All the modifications you apply to these settings will affect the recorded video saved into the HDD.

- **Channel**: Select the channel to configure recording related information.
- **Resolution**: This parameter defines, how large the recorded image will be.
- **FPS**: This parameter defines the number of frames per second the DVR will record.
- **Bitrate Control**: Select the bitrate level based on the complexity of the scene. For a simple scene, such as a gray wall is suitable constant bitrate (**CBR**). For more complex scene, such as a busy street is suitable variable bitrate (**VBR**).
- **Bitrate Mode**: If you want to set the bitrate by yourself, then choose **User-defined** mode. If you want to select the predefined bitrate, choose **Predefined** mode.
- **Bitrate:** This parameter corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.
- **Audio**: Select this option if you want to record audio along with video and have a microphone connected to the DVR or using a camera with audio capability (not included). Since the audio option is only available for the channels 1 to 4, you need to connect a camera with audio capability to these channels.

Hybrid DVR (HD Series)

15

Record: Schedule

This menu allows you to specify when the DVR records video and define the recording mode for each channel. The recording schedule lets you set up a schedule like, daily and hourly by normal (continuous) recording, and motion recording. To set the recording mode, click first on the mode radio button (Normal or Motion), then drag the cursor to mark the slots. The recording schedule is valid only for one channel. If you want to use the same recording schedule for other channels, use **Copy To** function.
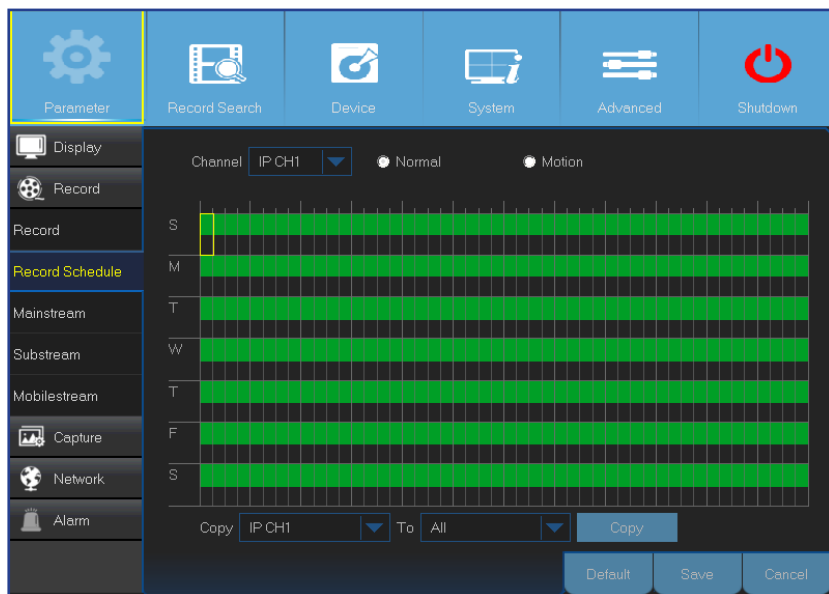
The image on the left side shows a recording schedule defined for Channel 1. According to this example schedule, Channel 1 would record 24h/7.

NOTE: *Make sure you have enabled recording for the channel. Please see "Record: Record & Mainstream" on page 15.*

- **Channel**: Select the channel to set its recording parameters.
- **Normal**: When the time slot is marked green, this indicates the channel performs normal recording for that time slot.
- **Motion**: When the time slot is marked yellow, this indicates the channel records only when a motion is detected during that time slot. For storage efficiency, we recommend to use this type of recording.

NOTE: *To use the motion detection, you must enable and configure the motion settings for the channel in Alarm menu. Please see "Alarm: Motion" on page 23.*

- **No Record**: A time slot marked black means that there is no recording scheduled for the time slot.

Record: Substream & Mobilestream

This menu allows you to configure the settings of a particular channel if the channel is being viewed via remote access, for example Web Client.


- **Channel**: Choose the channel where the settings are applied.
- **Resolution**: Set the resolution.
- **FPS**: This parameter defines the number of frames per second at the remote session.
- **Bitrate Control**: Select the bitrate level based on the complexity of the scene. For a simple scene, such as gray wall is suitable constant bitrate (**CBR**). For more complex scene, such as busy street is suitable variable bitrate (**VBR**).
- **Bitrate Mode**: If you want to set the bitrate by yourself, then choose **User-defined** mode. If you want to select the predefined bitrate, choose **Predefined** mode.
- **Bitrate**: Enter manually or choose from the drop-down menu the data throughput during the remote session.
- **Audio**: Check the box if you want to hear the live sound at the remote session. Make sure the camera with audio capability is properly connected to the selected channel.

This menu allows you to configure the settings of a particular channel if the channel is being viewed via mobile devices.

- **Channel**: Choose the channel where the settings are applied.
- **Enable**: Enable to allow to use mobilestreaming on this channel.
- **Resolution**: Set the screen resolution.
- **FPS**: This parameter defines the number of frames per second at the remote session.
- **Bitrate Control**: Select the bitrate level based on the complexity of the scene. For a simple scene, such as gray wall is suitable constant bitrate (**CBR**). For more complex scene, such as busy street is suitable variable bitrate (**VBR**).
- **Bitrate Mode**: If you want to set the bitrate by yourself, then choose **User-defined** mode. If you want to select the predefined bitrate, choose **Predefined** mode.
- **Bitrate**: Enter manually or choose from the drop-down menu the data throughput during the remote session.
- **Audio**: Check the box if you want to hear the live sound at the remote session. Make sure the camera with audio capability is properly connected to the selected channel.

Hybrid DVR (HD Series)

Capture: Capture & Capture Schedule

This menu allows you to configure the snapshot capturing parameters.
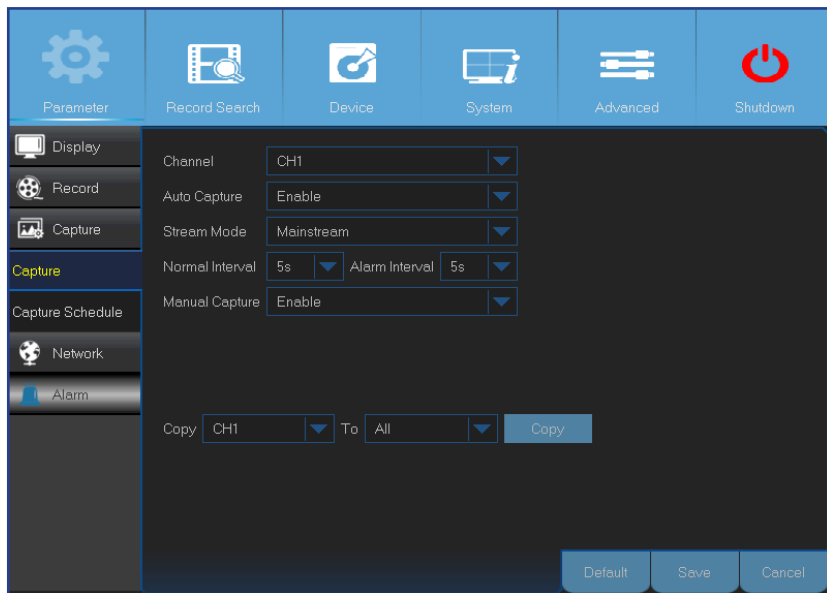
- **Channel**: Select the channel to set its capture parameters.
- **Auto Capture**: Enable or disable automatic capturing on the channel. When this feature is enabled, you can select the snapshot capturing interval.
- **Stream Mode**: Select the image resolution.

NOTE: *When the Auto Capture is enabled, you can select the image capturing interval.*

- **Normal Interval**: Snapshots are captured based on normal interval.
- **Alarm Interval**: Snapshots are captured based on alarm interval only when a motion is detected. Please make sure **Alarm** > **Motion** is enabled for the channel.
- **Manual Capture**: Enable or disable manual capturing on the channel.

This menu allows you to configure the snapshot capturing schedule.
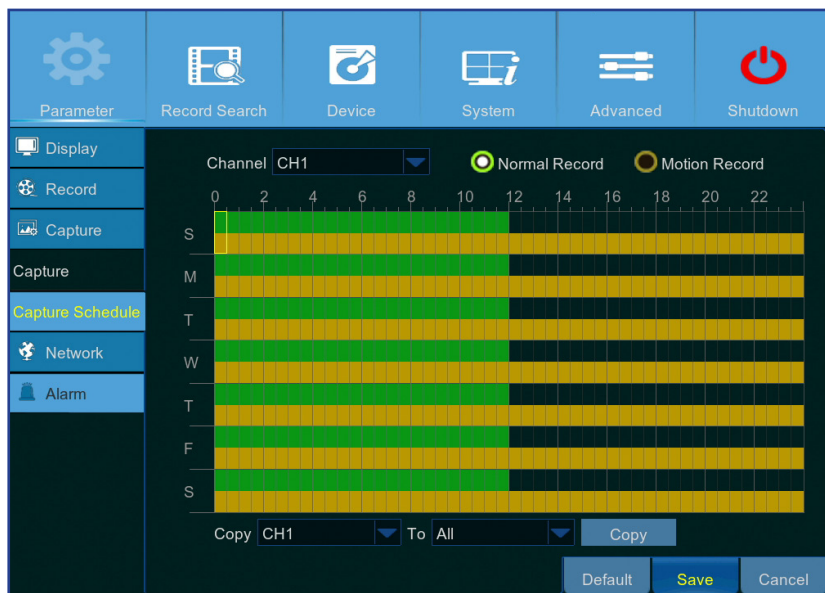
In the following example the **Normal Interval** is set to **30s** and **Alarm Interval** is set to **5s**. According to the schedule, normal capturing and motion capturing are taking place simultaneously from 0AM ~ 12PM. From 12PM ~ 24AM the capturing is based on motion only.

-From 0AM ~ 12PM the snapshots are captured every after 30 seconds if no motion is detected. If motion is detected, the snapshots are captured every after 5 seconds.

-From 12PM ~ 24PM the snapshots are captured every after 5 seconds only if motion is detected. Otherwise, there is no snapshot captured during this time period.

- **Channel**: Select the channel to set its snapshot capturing schedule.
- **Normal**: When the time slot is marked green, this indicates the channel is capturing snapshots based on the **Normal Interval**.
- **Motion**: When the time slot is marked yellow, this indicates the channel is capturing snapshots based on **Alarm Interval** only when a motion is detected.
- **No Capturing**: A time slot marked black means that there is no snapshot capturing scheduled for the time slot.

This menu allows you to configure network parameters, such as PPPoE, DHCP, Static, and 3G. The most common types are DHCP or Static. Most probably your network type is DHCP, unless the network is manually addressed (usually called- Static). If you need an authentication user name and password to the Internet, then choose PPPoE. If you want to use mobile network connection, then choose 3G.

- **Network Type**: Select the network type you are using.

NOTE: *If you are not sure in your network type or settings, please contact your ISP (Internet Service Provider).*

DHCP: This is the network type when a device on your network (usually a router) assigns automatically all the network parameters for your DVR.

Static: Requires all the network parameters to be filled in manually.

3G: Prior using the mobile network, you need to connect a 3G dongle to the DVR.

PPPoE: This is an advanced protocol that allows the DVR to connect to the network more directly via DSL modem.

Network: Network & Substream

- **User/Password**: You need to use the login credentials when the network type is set to PPPoE or 3G.
- **HTTP Port**: This is the port that you will use to log in remotely to the DVR (e.g. using the Web Client). If the default port 80 is already taken by other applications, please change it.
- **Client Port**: This is the port that the DVR will use to send information through. If the default port 9000 is already taken by other applications, please change it.
- **IP Address**: The IP address identifies the DVR in the network. It consists of four groups of numbers between 0 to 255, separated by periods. For example, "192.168.001.100". You need to enter the IP address manually only if your network type is **Static**.
- **Subnet Mask**: Subnet mask is a network parameter which defines a range of IP addresses that can be used in a network. If IP address is like a street where you live then subnet mask is like a neighborhood. The subnet address also consists of four groups of numbers, separated by periods. For example, "255.255.000.000". Alike IP address, you need to enter the subnet mask manually only if your network type is **Static**.
- **Gateway**: This address allows the DVR to access the Internet. The format of the **Gateway** address is the same as the **IP Address**. For example, "192.168.001.001". Alike IP address, you need to enter the gateway address manually only if your network type is **Static**.
- **DNS1/DNS2**: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually should be enough just to enter the DNS1 server address.
- **APN**: Enter the 3G APN (Access Point Name) for the packet data connection.
- **Dial Code**: Modify the 3G dial number if necessary.
- **UPNP**: If you want to log in remotely to the DVR using Web Client, you need to complete the port forwarding. Enable this option if your router supports the UPnP. You need to enable UPnP both, on DVR and router. In this case, you do not need to configure manually port forwarding on your router.

NOTE: *If your router does not support UPnP, make sure the port forwarding is completed manually. Please see the customized free guide on* http://portforward.com/kguard.

Network: Email & Email Schedule

This menu allows you to configure email settings. Please complete these settings if you want to receive the system notifications on your email when a motion is detected, HDD becomes full, HDD is in error state, or Video Loss occurs.

- **Email**: Enable this feature.
- **SSL**: Enable if your email server requires the SSL verification. If you are not sure, please consult your email service provider. For example, if you are using Gmail then this option should be enabled.
- **SMTP Port**: Enter the SMTP port of your email server. For example, if you are using Gmail, the SMTP port is 465.
- **SMTP Server:** Enter the SMTP server address of your email.
- **Sender**: Enter your email address.
- **Sender Password**: Enter the password of your email.
- **Receiver**: Enter the email address where you want to receive the event notifications from the DVR.
- **Interval**: Configure the length of the time interval between the notification emails from the DVR.

NOTE: *To make sure all settings are correct, click* Test Email*. The system sends an automated email message to your inbox. If you received the test email, it means the configuration parameters are correct.*

This menu allows you to create email schedule. Define when and what type of events you want to be notified by email.

The color codes on email schedule have the following meanings:

- **Green**: Slot for Motion.
- **Red**: Slot for Exception (HDD full, HDD error, or Video Loss).
- **Automatic Event Sending is Off**: A time slot marked black means that there is no automatic email sending scheduled.

Network: DDNS & FTP

This menu allows you to configure DDNS settings. The DDNS provides a static address to simplify remote connection to your DVR. To use the DDNS, you first need to open an account on the DDNS service provider's web page. For example, **KGUARD.ORG**: *http://www.kguard.org*.

- **DDNS**: Enable the DDNS service.
- **Server**: Select the preferred DDNS server.
- **Domain**: Enter the domain name you created on the DDNS service provider's web page. This will be the address you type in the URL box when you want to connect remotely to the DVR via PC.
- **User/Password:** Enter the user name and password you obtained when creating an account on the DDNS service provider's web page. For example, username for KGUARD.ORG users is the email address you used when creating the account on KGUARD.ORG web page.
  After all parameters are entered, click **Test DDNS** to test the DDNS settings.

This menu allows you to enable FTP function to view and load captured snapshots from DVR to your storage device over FTP.

- **FTP Enable**: Enable the feature in DVR.
- **Server IP**: Enter the FTP server IP address.
- **Port**: Enter the FTP port for file exchanges.
- **Name/ Password**: Enter your FTP server user name and password.
- **Directory Name**: Enter the default directory name for the FTP file exchanges.
- **Test FTP**: Click to test the FTP settings.

Hybrid DVR (HD Series)

22

Alarm: Motion

This menu allows you to configure motion parameters. The motion detection is pretty straight forward, the DVR simply compares one frame to another. A sufficient amount of difference is interpreted as motion. When the motion is detected, the system can be set to automatically initiate recording. In this menu you can select the channels where you want the motion based recording to take place.
By default, the whole screen is marked for motion detection (red blocks). If you want to disable the motion detection on an area, you need to click the grid cursor and then drag the mouse to highlight the scope to unmark the area (transparent block).

If you set the motion detection at a high sensitivity level ("8" is the most sensitive) then the frequency of false alarm events increases. Vice versa if the sensitivity level is too low ("1" is the least sensitive), you might increase the risk that a significant motion event will not trigger the motion detection to record.
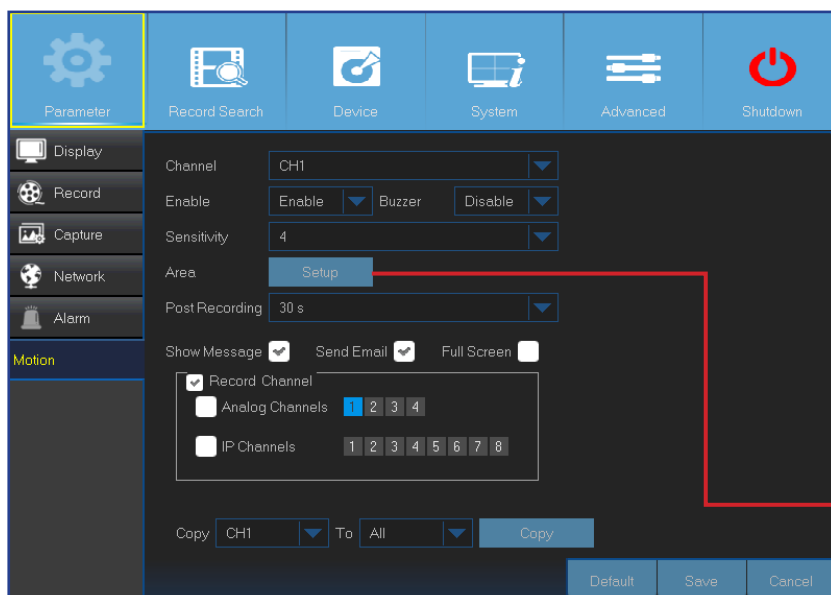
- **Channel**: Select the channel you want to set the motion detection.
- **Enable**: Enable or disable the function.
- **Buzzer:** The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer duration in seconds when the motion is detected.
- **Sensitivity**: Set the sensitivity level.
- **Post Recording**: You can set how long after an event occurs that the DVR will continue to record. The recommended recording length is 30 seconds but it can be set higher up to 5 minutes.
- **Show Message**: Check the box to display "M" icon on the screen when the motion is detected.
- **Area**: To setup motion area, click **Setup**.

Area is unmarked
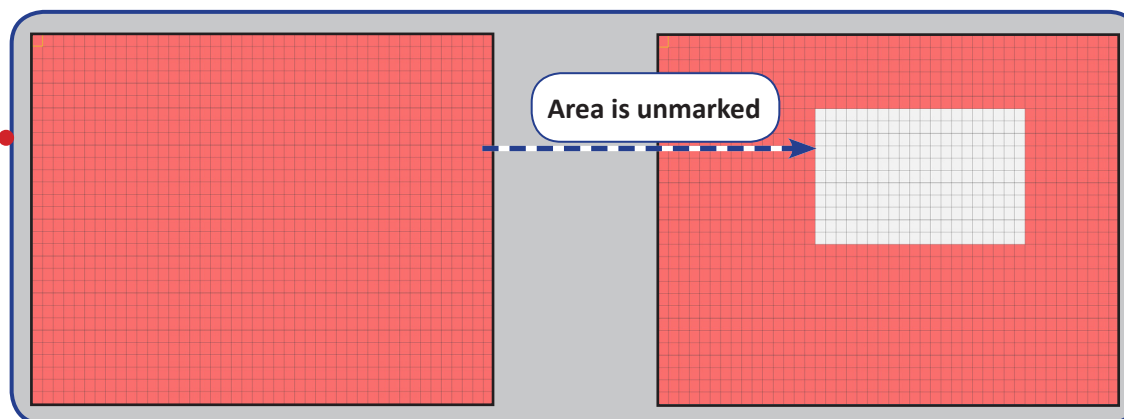
- **Send email**: You can let the DVR to send you an auto-email when the motion is detected. To set up the email schedule, please see "Network: Email & Email Schedule" on page 21.

- **Full Screen**: If this function is enabled and a motion is detected in a channel, you will see that channel in full screen.

- **Analog Channels/ IP Channels**: Here you can select which channels you want to include to the motion detection. If the motion is detected, the recording will start immediately on those channels.
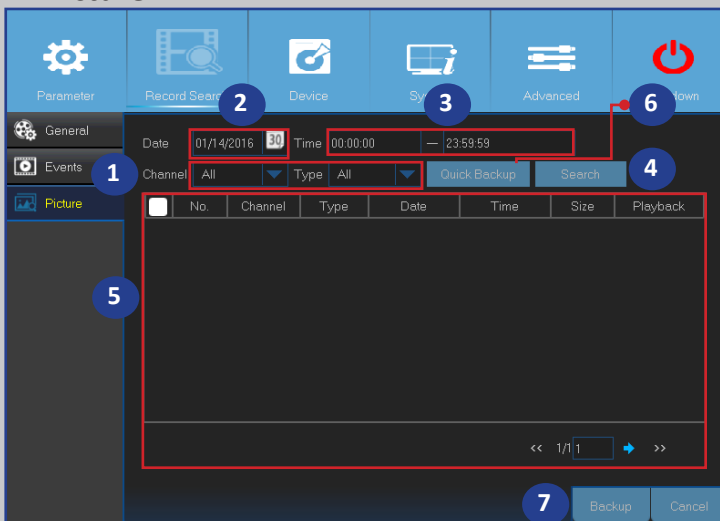
Record Search: General, Events & Picture

This menu allows you to search and playback the recorded videos based on recording type, channel, date and time parameters. You can also view and backup events and captured images.
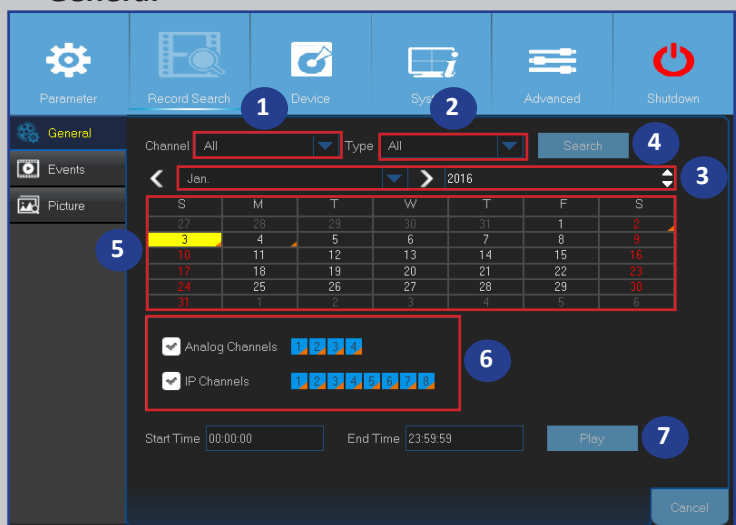
• Events
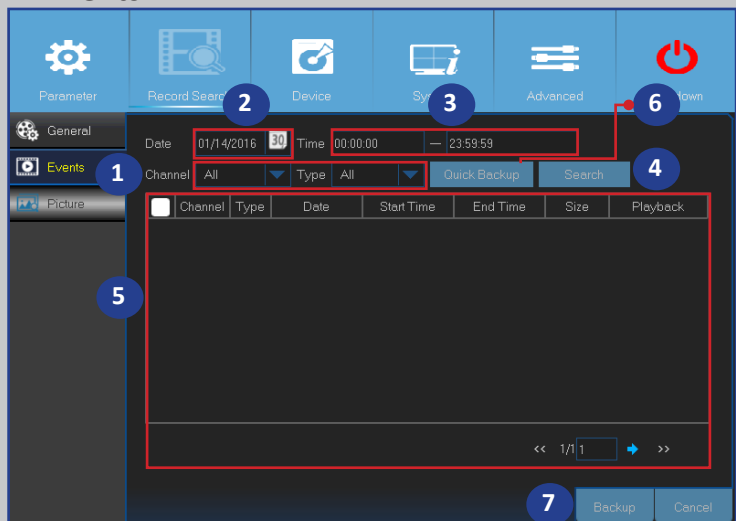
• Picture

1) Select the channel and item type (**All/ Normal/ Motion/ Manual** (*)).
2) Select the recording date.
3) Select the recording time.
4) Click **Search**.
5) Select the recording or picture from the table.
6) To backup the entire event or picture(s) Click **Quick Backup**.
7) To backup an individual event or picture, select the entry and then click **Backup**.

• General

1) Select the channel.
2) Select the recording type (**All/ Normal/ Motion**).
3) Select the recording month and year.
4) Click **Search**.
5) Select the recording from the table.

  NOTE: *Dates marked with orange triangles have video recordings.*

6) Select the channels to playback (optional).
7) Modify the start time and end time if necessary and then click **Play**.
  The Playback screen opens. Please see "Playback Recordings" on page 25.

Playback Recordings

- **Playback Screen**

Playback Status

Playback Control Full screen

a) Close: Click ⊗ to close the Playback screen.

b) Recording(s): Video recordings from selected channels.

c) Smart Search: Please see more in "Smart Search" on page 26.

d) Trim Video: Please see more in "Trimming Videos" on page 27.

e) Volume Control: Slide the sliderbar to increase or decrease volume. Click 🔊 to mute audio.

f) Zoom In: Click to zoom in.

g) Time Bar: The color indicates the videorecording type:
- Smart recording (**dark green**)
- Normal recording (**green**)
- Motion recording (**yellow**)

h) Recording Type Indicator: Motion, Smart, and Normal.

i) Time Frame: Select Playback timeline.

j) Channels: Check the channels to playback.

k) Playback Type: Select the playback type between **General**, **Events**, and **Picture**.

l) Recording Calendar: Dates marked with orange triangles have recordings.

Smart Search

Use this function to find motion of a specific area inside recording.

1) Select a channel to playback in full screen.
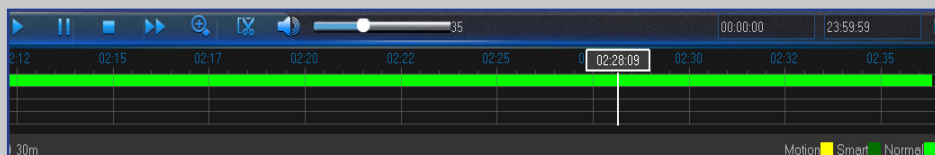
2) Click 〰.

3) Use the cursor to mark the <u>area</u> on the channel where you want to find motion or click ⊞ to search motion <u>all over the channel</u>.
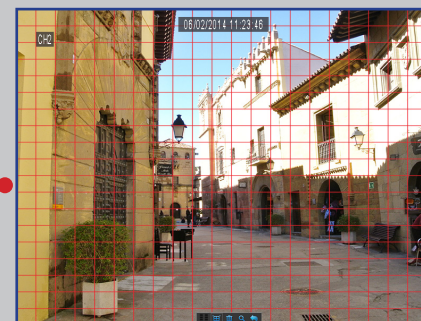
4) Click 🔍.

As a result of Smart Search, you will see the motion based recording(s) on the channel Time Bar marked with **dark green** lines.
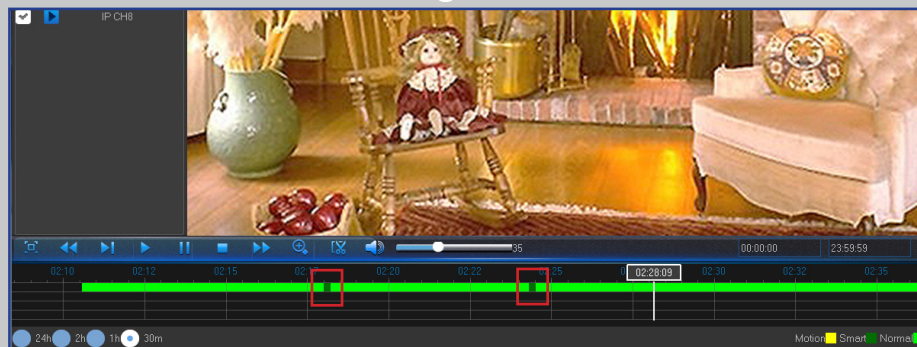

Motion Sensitive Area

Full Screen is Motion Sensitive

Record Search: General, Events & Picture (continued)

Trimming Videos

Use this function if you need to backup just a certain section of the video recording.

1) Connect a USB flash drive to the DVR.

2) Double-click on the channel (to display in full screen during video playback) that you wish to backup.

3) Click on the Time Bar to mark the beginning of the video footage you wish to backup.

4) Click ✄ to start selecting the footage.
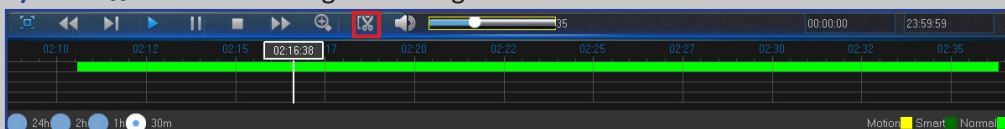
5) Click on the Time Bar to mark the end of the video footage you wish to backup.
The marked up area is now displayed within the red arrows.

Backup Window
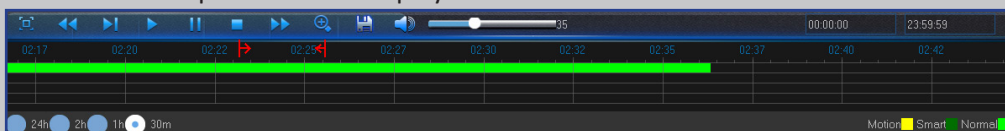
6) Click 💾 to save the footage.
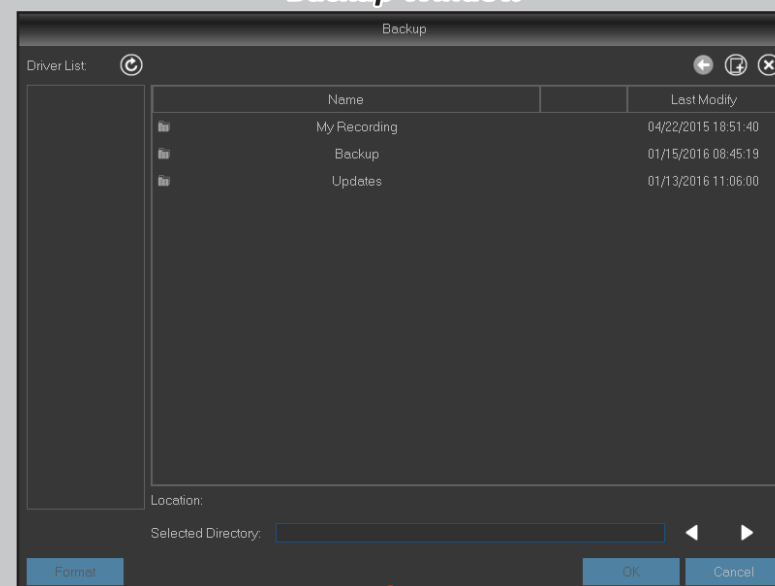A video type selection message appears.
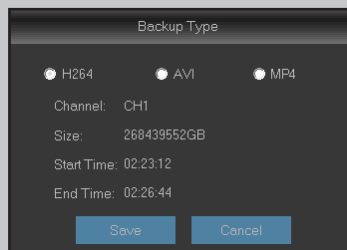
7) Choose the video backup type and click **Save**.

NOTE: *To view recordings in H.264 format, please install the media player from the supplied product CD. AVI type is supported by most media players.*
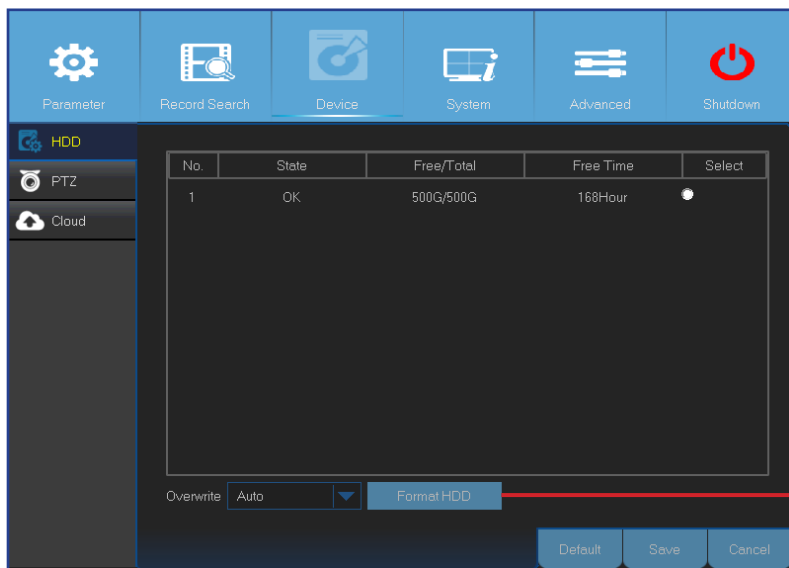
8) In Backup window, select the directory and click **OK** to save the footage.

Device: HDD & PTZ

This menu allows you to configure the internal HDD that the DVR uses for saving the recordings. You need to format the HDD only at the first startup and if you replace the HDD.


- **Format HDD**: Select the HDD you want to format and then click **Format HDD**. To start formatting, you need to enter your user name and password and then click **OK** to confirm to continue formatting.
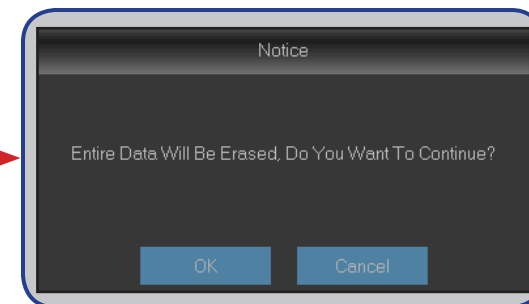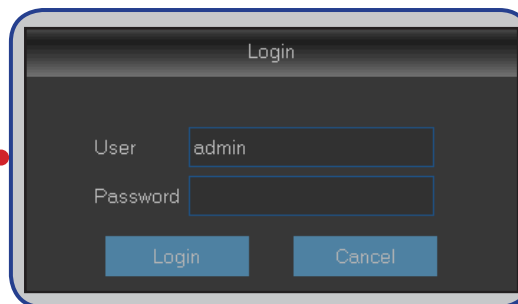
- **Overwrite**: Use this option to overwrite the old recordings on the HDD when the HDD is full. For example, if you choose the option 7 days then only the last 7 days recordings are kept on the HDD. To prevent overwriting any old recordings, select **Disable**. If you have disabled this function, please check the HDD status regularly, to make sure the HDD is not full.

This menu allows you to configure the PTZ (Pan-Tilt-Zoom) settings for the dome camera.
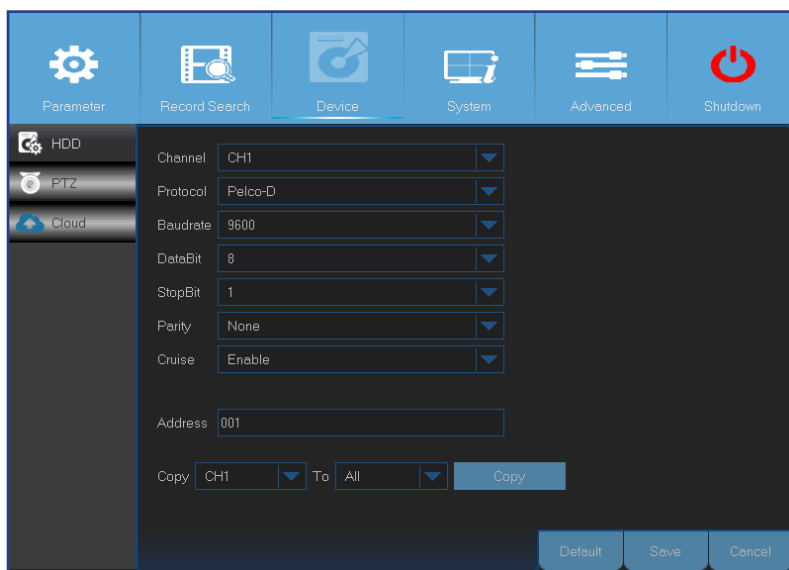
- **Channel**: Choose a channel where is connected a dome camera.
- **Protocol**: Choose the communication protocol between the PTZ capable camera and DVR.
- **Baudrate**: The speed of the information sent from the DVR to the PTZ-capable camera. Make sure it matches the compatibility level of your PTZ-capable camera.
- **DataBit/StopBit**: The information between the DVR and PTZ-capable camera is sent in individual packages. The **DataBit** indicates the number of bits sent, while the **EndBit** indicates the end of the package and the beginning of the next (information) package. The available parameters for **DataBit** are the following: **8**, **7**, **6**, **5**. The available parameters for the **StopBit** are **1** or **2**.
- **Parity**: Is necessary for error check. See the documentation of your PTZ-capable camera, to configure this setting.
- **Cruise**: Enable to allow to use the Cruise mode. In order to use the Cruise mode, you need to set a number of preset points.
- **Address**: Set the command address of the PTZ system. Please be noted that each PTZ-capable camera needs a unique address to function properly.

NOTE: Click 🔘 on the Quick Camera Toolbar to start using the PTZ function.

Device: Cloud

This menu allows you to see what is happening on your camera site anytime, anywhere through the Internet. Uploading the snapshots can be based on a time interval or a motion is detected.

- **Cloud Storage**: Enable to allow cloud settings.
- **Cloud Type**: This DVR only supports Dropbox cloud storage.
- **Channel**: Select the channels where you want to upload the snapshots to Dropbox.
- **Interval**: Set the image uploading interval. Set **OFF** if you want to use motion based uploading.
- **Motion Detection**: Enable if you want to upload snapshots to Dropbox when the camera detects a motion.
- **Drive Name**: Enter the cloud storage name for your DVR.
- **Activate Cloud**: Click to activate the function. An activation email will be sent to the Receiver email account.
- **Advanced E-mail Setup**: Click to configure your email settings.

- **Upgrade Cloud Storage**: Click to upgrade the current cloud storage service.

Getting ready to start uploading the snapshots

1) Enable **Cloud Storage** and configure Cloud settings for channel(s).

2) Configure advanced e-mail settings in **Advanced E-mail Setup**.

3) Click **Activate Cloud** and wait for the verification email.

4) Click **Activate Cloud in Dropbox** link on verification email.

> **NOTE:** *Make sure to check your email and follow the link to complete cloud storage activation within 3 minutes.*

5) Enter your Dropbox account credentials.

Setting up the Cloud service is now complete. If you encountered any problems while activating the Cloud service, please repeat steps from 3 to 5.

This menu allows you to configure the general parameters of the system, such as date and time, OSD language, menu timeouts, etc.

- **Date/Time**: Enter the date and time manually.

  NOTE: *For date/time automation over the Internet, enable NTP.*

- **Date Format**: Set the date format here. For example, if you keep the default YY-MM-DD and today's date is January 11th, 2016, the date appears on the footages as 2016-01-11.

- **Time Format**: Set the time format here. For example, if you keep the default **24Hour** and the current time is 5:29:54 PM, the time appears on the footages as 17:29:54.

- **Language**: Choose the OSD language.

- **Video Format**: Choose the video format between NTSC and PAL. If the DVR's picture is flickering or has only black screen, it may be that the video format is not correct.

- **Menu Timeouts**: Set the time out the DVR will exit the menus when they are not in use.

- **Show Wizard**: Check if you want the Startup Wizard to reappear each time you startup the DVR.

This menu allows you to configure the user login information.

NOTE: *The default user name is "admin" and default password is "123456".*

- **User Edit**: To enable/disable the user account, modify the user name and password, click on the user account you wish to edit, then click **Edit**.

- **Change User Permissions**: To modify user access permissions, click on the user account you wish to modify, then click **Permission**.

System: DST, NTP & Log

DST stands for Daylight Savings Time.

- **DST**: Enable if Daylight Saving Time (DST) is observed in your country.
- **Time Offset**: Select the amount of time to offset for DST.
- **Daylight Saving Time**: Choose to set the daylight saving time in weeks or in days.
- **Start Time/End Time**: Set the start time and end time for daylight saving.

NTP stands for Network Time Protocol. This feature allows you to synchronize the date and time automatically on the DVR over Internet. Therefore the DVR needs to be connected to the Internet.

- **NTP**: Enable if you want the DVR to update the date and time automatically.
- **Server Address**: Select the NTP (Network Time Protocol) server.
- **Time Zone**: Select the Time Zone in your location.
- **Update Now**: Click here to update the system date and time.

This menu allows you to view a list of events, presented in chronological order.

- To search for a log, enter the start time/end time to the respective fields and click **Search**.
- To display log details, double-click on the item.
- To backup a log entry, connect an external USB disk to the DVR, click on the log event and click **Backup**.
- **Log Type**: Select the log type.
- **Start Time/End Time**: Specify the start and end date/time of the logs you want to review and/or save on an external USB storage device. Click **Search**. The logs will be listed on the table.

System: Info, Channel Info & Record Info

This menu allows you to view the summary of the system and modify the device name, and device ID.

- **Device Name**: Enter the desired name for your DVR. The name can include both letters and numbers.
- **Device ID**: Enter the desired ID for your DVR. The device ID is used to identify the DVR, and can only be composed of numbers, and cannot be the same with other IDs when multiple DVRs are connected in the same network.
- **MAC Address**: Display the MAC address of the DVR. When multiple DVRs are connected to the same network, each DVR must have a unique MAC address to ensure that the DVR can connect to the network.

NOTE: *If you need to scan the QR code of the DVR but the sticker with the code on top of the device has got damaged or is out of reach, then here you can find the device's QR code.*

This menu allows you to view the information summary on the channels.
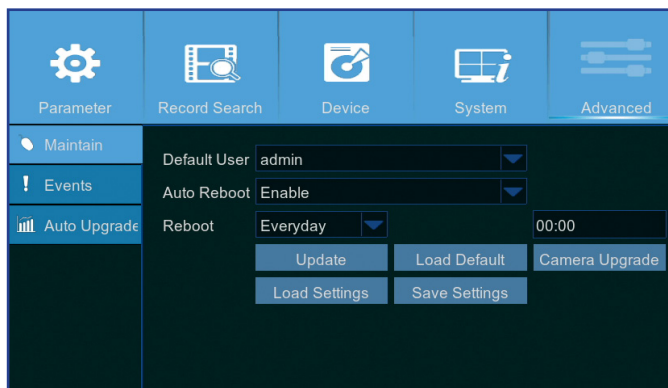

This menu allows you to view the recording information summary by channel, record state, stream type, FPS, bitrate, and resolution.

Advanced: Maintain, Events & Auto Upgrade

This menu allows you to configure automatic system maintenance, load factory defaults, update the firmware settings, and upgrade the IPC.

- **Default User**: If you want to log in to the DVR automatically for live view after each startup, then only administrator user account can be set for auto login.
- **Auto Reboot**: Set enable to reboot the DVR based on a schedule.
- **Reboot**: Set the rebooting schedule based on day, week, or month.
- **Update**: Click to load the update file and then upgrade the firmware.
- **Load Settings**: Select this option to import the setting that you have saved earlier, using the **Save Settings** function.
- **Load Default**: Use this feature to restore the factory default settings of the DVR. It is recommended to load defaults for all options, after upgrading the firmware.
- **Save Settings**: Select this option to save the DVR current settings, such as the video recording settings, network configurations, and etc to the USB device.
- **Camera Upgrade**: Click to select the update file and then upgrade the IP camera.

  NOTE: *Some IP cameras may not support this feature.*

This menu allows you to set the type of events that you want the DVR to inform you.
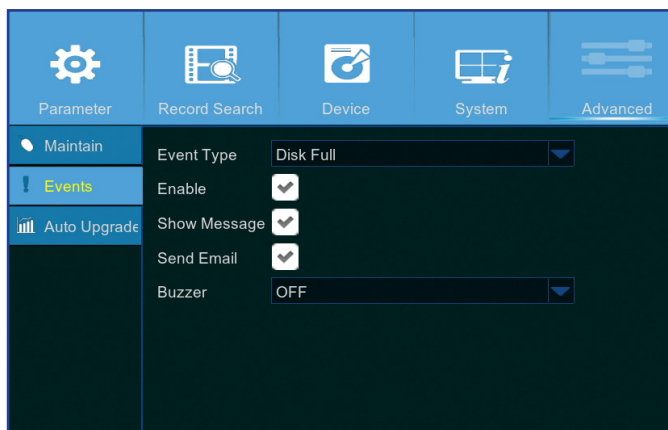
- **Event Type**: Select the event type. Options are:
  - **Disk Full**: When HDD is full.
  - **Disk Error**: If HDD is not detected properly.
  - **Video Loss**: If camera is not detected properly.
- **Enable**: Check the box to enable the monitoring of the event.
- **Show Message**: Check the box to display a message on the screen when Disk Full, Disk Error, or Video Loss event happens.
- **Send Email**: Let the DVR to send you an auto-email when an event occurs. To set up the email and schedule, please see "Network: Email & Email Schedule" on page 21.
- **Buzzer**: Set the buzzer duration when the event occurs (Off/10 S/20 S/40 S/60 S). To disable buzzer, select **OFF**.

This menu allows you to automatically upgrade the DVR.
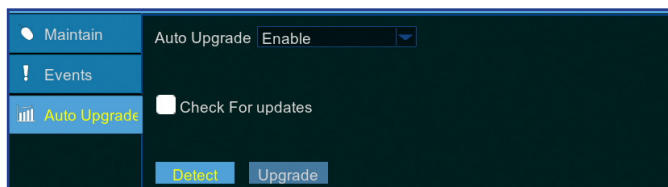
- **Auto Upgrade**: Enable to allow automatic upgrading.
- **Check For updates**: Check the box to allow the system automatically check for updates.
- **Detect**: Click to detect the software version.
- **Upgrade**: Click to start upgrading.

Hybrid DVR (HD Series)

Remote Access via Web Client

Use the Web Client to remotely access your DVR at anytime via a PC. Before you access the Web Client, you need to ensure that the network settings of the DVR are configured properly. The most convenient and easiest way is if you have set the DVR a static IP address (please see "Network: Network" on page 19). It means you only need to open the web browser on your PC and type in the static IP address you have set on the DVR. However, if the IP address of the DVR is assigned by a DHCP server (see "Network: Network" on page 19), then it means that each time you reboot the DVR, the IP address changes. In this case, ask if your ISP can provide you a static IP address. If not, then configure the DDNS service. See the network settings in "Network: Network" on page 19 and "Network: DDNS & FTP" on page 22. Also, please make sure the UPnP is configured in the DVR and router, or the manual port forwarding is completed in the router.

**NOTE:** *For Safari on Mac OS, verify the following:*

a. Make sure you have installed or updated the Web plug-in to the latest version. Click the <u>download</u> *link to download the* **SurveillanceClient Installer** *software, close the browser, and follow the on-screen instructions to install the software on your Mac.*
b. Make sure that the Web plug-in is enabled in your browser (go to **Safari > Preferences > Security >** *check* **Allow Plug-ins** *checkbox).*
c. When logging in for the first time, click **Trust** *to enable your browser to use "SurveillanceClienth.plugin" plug-in.*

Logging In

To access the Web Client, do the following:

1) Launch the web browser (Internet Explorer) on your PC and enter the DVR static IP address or DDNS domain name (Host Name) you have set on DVR in the URL box.

NOTE: *The following IP address is an example only.*
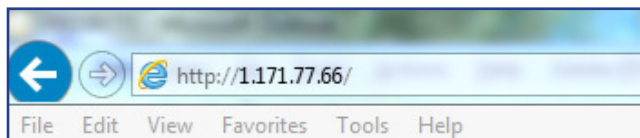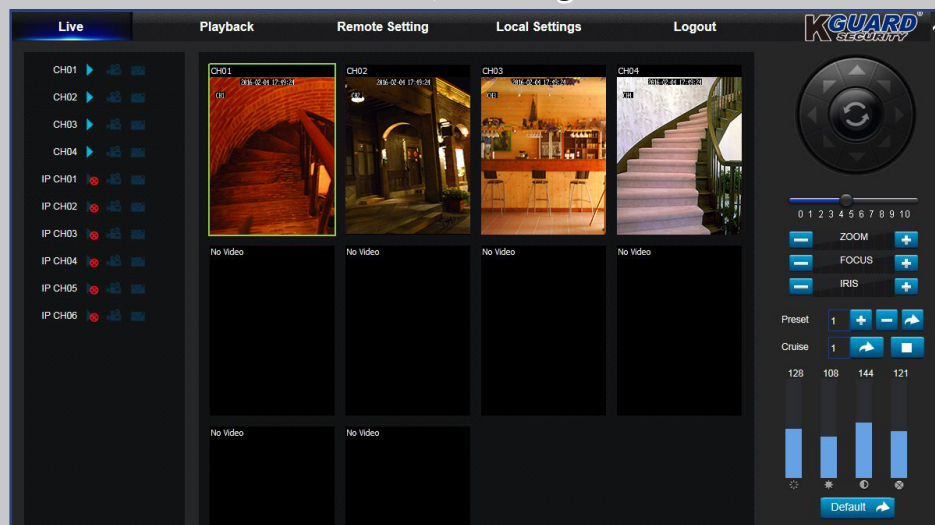

The user login page opens as shown.

The default DVR user name is "**admin**" and default password is "**123456**".

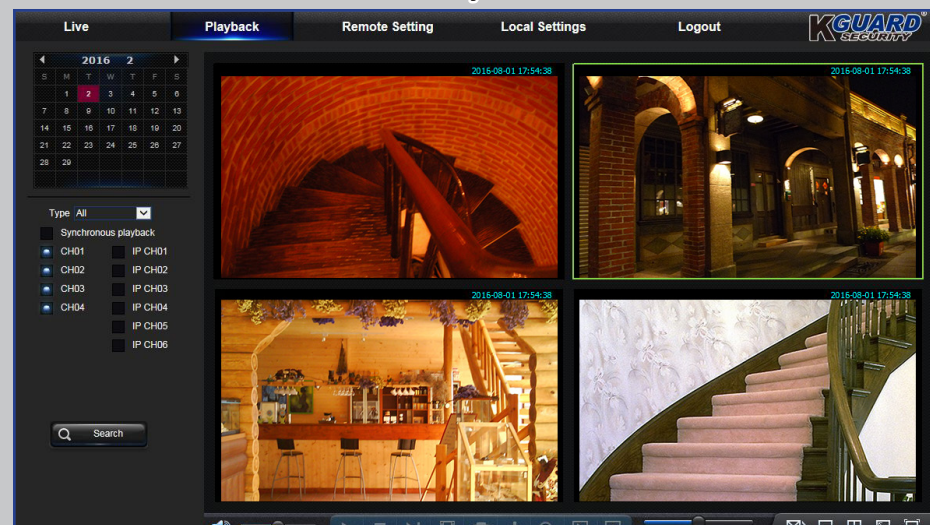**2)** Enter the **User Name** and **Password**. Then click **Login**.

# Remote Access via Web Client (continued)

Remote Live Viewing Screen

This is the first screen that opens after you have logged in to the Web Client. Here you can show or disable channels (▶), start recording (🔲) manually, take snapshots (🔲) of the screens, configure PTZ settings (not supported), etc.

Remote Playback Screen

You can look for recorded files stored on the HDD inside the DVR, and save the result to the local directory on your PC. To configure the local directory. Please see "Local Settings Menu" listed below.

Remote Settings Menu
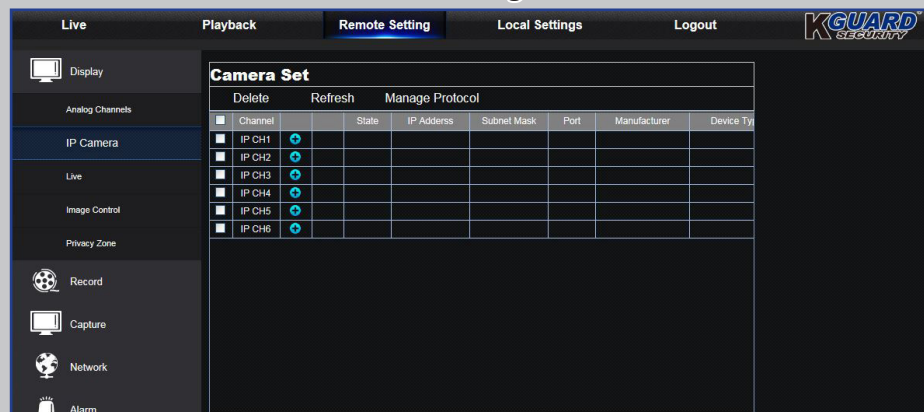
Here you can remotely configure the settings of the DVR. Please see "Main Menu" on page 10 for more information.

Local Settings Menu
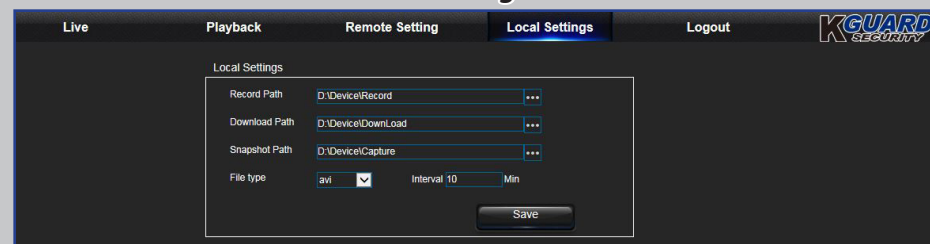
- **Record Path:** Set the path to save manual recordings on your PC's local drive.
- **Download Path:** Set the path on your PC's local drive where you want to download recordings from the DVR.
- **Snapshot Path:** Set the path to save manual snapshots on your PC's local drive.
- **Save:** Click **Save** to save the modifications.
- **File Type:** Choose your preferred file type for manual recordings.

Hybrid DVR (HD Series)

Troubleshooting

If you experience any problems in using the DVR, try the following solutions to these common problems before calling for service. If problems persist, contact the customer service in your area.

Question: I have changed the administrator password but I cannot remember it.

Answer:
- To obtain the factory default password, contact your retailer or directly send an email to KGUARD at *support@kguardsecurity.com*

Question: The DVR does not turn on and the indicators are not lit.

Answer:
- Check if the power adapter (12V/2A) is properly connected.
- Plug the power adapter to another power outlet, the current outlet may be damaged.

Question: The remote control is not working.

Answer:
- Make sure nothing is blocking the remote control and the DVR. Aim the remote control at a proper distance.
- Check the remote control batteries.

Question: Motion detection function does not work.

Answer:
- Check if the motion detection is enabled, and motion area is marked for the channel.
- Your IP cameras does not support motion detection, or can not be configured via DVR.

Question: Time display is not correct.

Answer:
- Date/time setup is not correct.
- By default, the time and date is updated automatically after the DVR is connected to the Internet. Make sure the time zone on NTP menu is set correctly according to your location.

Question: The buzzer keeps on sounding.

Answer:
- Check the Motion or Events settings. Motion Detection or Video Loss may be detected. Check the HDD capacity and the video connections, which may be triggering the buzzer.

Question: I cannot access the web client.

Answer:
- Check if the network cable is properly connected to the DVR.
- Check if the UPnP function is enabled in router and DVR or if the router does not support UPnP, then make sure the port forwarding is completed.
- Check if the network settings are properly configured. See .
- Ensure that you have Internet Explorer 6 or above.
- For Safari on Mac OS, make sure that the Flash Player is enabled in your browser and you have updated the Adobe Flash Player plug-in to the latest version.

Question: I am getting too many email alerts.

Answer:
- Check the Sending Interval setting for the email alerts. See .
- If the DVR keep reporting errors such as Video Loss or HDD error, check if the camera is properly connected or other hardware configurations.

Question: The DVR's picture is flickering or has only black screen.

Answer:
- The video format (NTSC/PAL) setup is not correct.

Question: Decoding Failed is displayed on the screen.

Answer:
- Check if the input FPS or bandwidth of IP cameras has been exceeded the limits. Adjust the FPS or Bitrate value on Mainstream menu for the IP camera.
- Check if the video compression type of IP camera is H.264.

KGUARD SECURITY®

Customer Support

KGUARD INFORMATION CO., LTD.	USA Technical Support Contact
Address: 4F, No.113, Jian 2nd Road, Jhonghe District, New Taipei City 23585, Taiwan TEL: +886-2-8228-6080 FAX: +886-2-8221-6857 Email: support@kguardsecurity.com	TEL:1-866-978-4888 Email: usservice@kguardsecurity.com