

Stand Alone Type

Digital Video Recorder

USER'S MANUAL

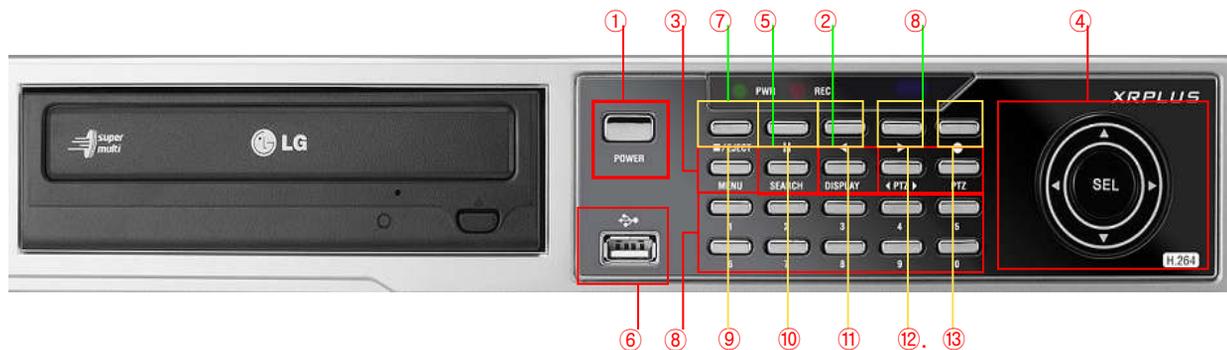
(Real time recording 8 & 16 CH DVR)

Revision Date : 2010. 6. 30.

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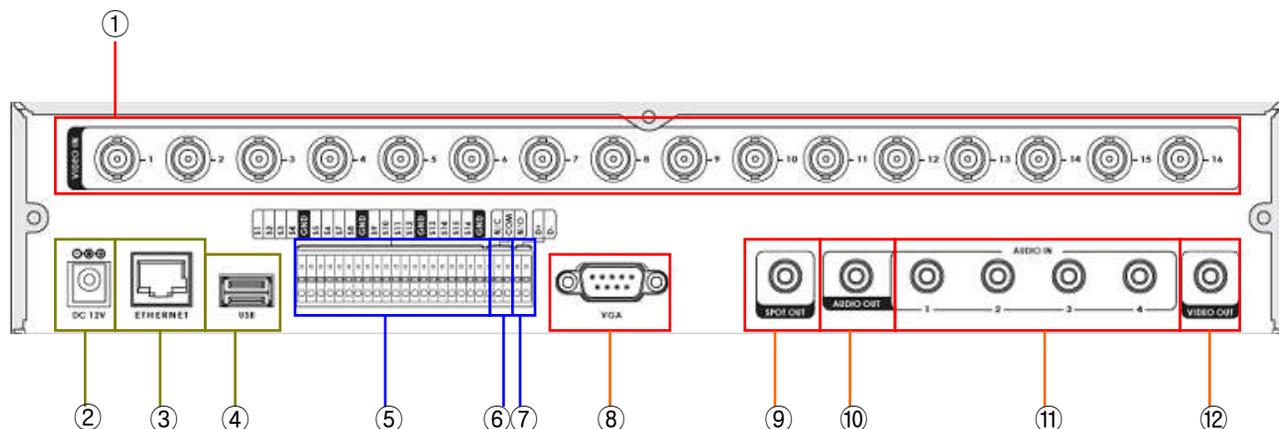
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1. Front Panel



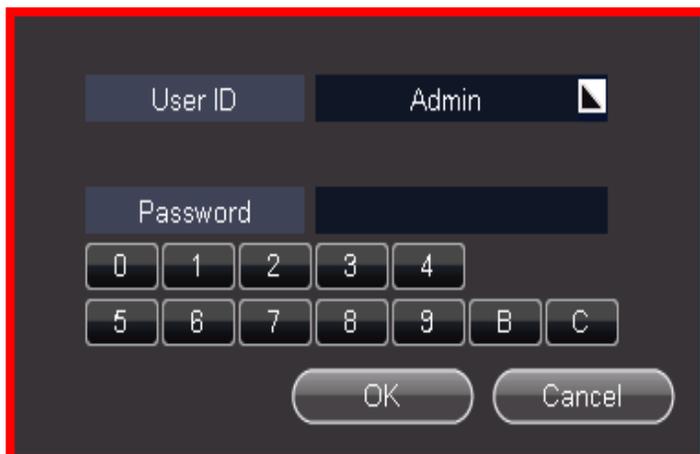
- ① POWER : System Power On/Off
- ② DISPLAY : Select Screen Division Mode or Sequence Mode
- ③ PTZ : Go to PTZ Camera Control
- ④ SEL : Go to Main Menu or Select the menu
- ⑤ SEARCH : Go to Search Mode for Playback Recorded Data
- ⑥ USB PORT: USB port to use the USB memory stick or USB mouse
- ⑦ EJECT : Eject CD/DVD Rom
- ⑧ Channel Select button : Select Channel
- ⑨ ■/EJECT : Stop and Eject CD/DVD
- ⑩ || : Pause Live or Play ack screen
- ⑪ ◀ : Reverse Play
- ⑫ ▶ : Play
- ⑬ ● : Panic recording

2. Rear Panel



- ① Video In : BNC Video Input Port
- ② DC 12V Power Input
- ③ Ethernet Port : 10/100 Ethernet LAN/WAN connection (for Remote Access and Configuration)
- ④ USB Port: USB Port for use of a USB Memory Stick and/or USB HDD Backup
- ⑤ Alarm : 16 x Input TTL Alarm/Sensor Input Terminal
- ⑥ Relay : Relay output Terminal
- ⑦ RS-485 port : RS485 data+ data- Terminal. (for use of PTZ camera)
- ⑧ VGA OUT : VGA Main Monitor Output
- ⑨ Spot out : Output to Spot Monitors
- ⑩ Audio Out : RCA Audio Line Out
- ⑪ Audio In : 4 x RCA Audio Line Input
- ⑫ Analog Video out : Video out same as VGA monitor without GUI

3. Start Up



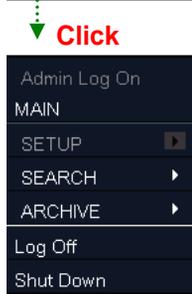
After startup process is complete, login window appears. (Default password is "0". Then, click the "OK" button.)

If you move your mouse or cursor at the bottom, you can find the menu bar.

Use this button to fix the menu bar on screen



(Screen division)



(channel selection)



(HDD usage & network status)

(menu navigator)

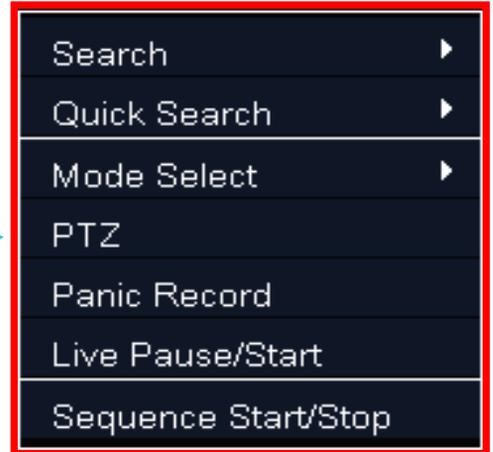


(Main Menu)



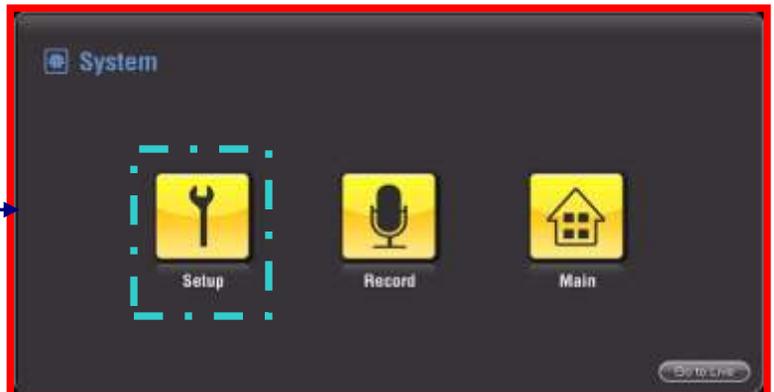
You can see the whole menu structure by click menu navigator icon. If you click menu (main or sub), DVR takes you directly into the specific menu.

4. On Screen (Mouse right button) menu

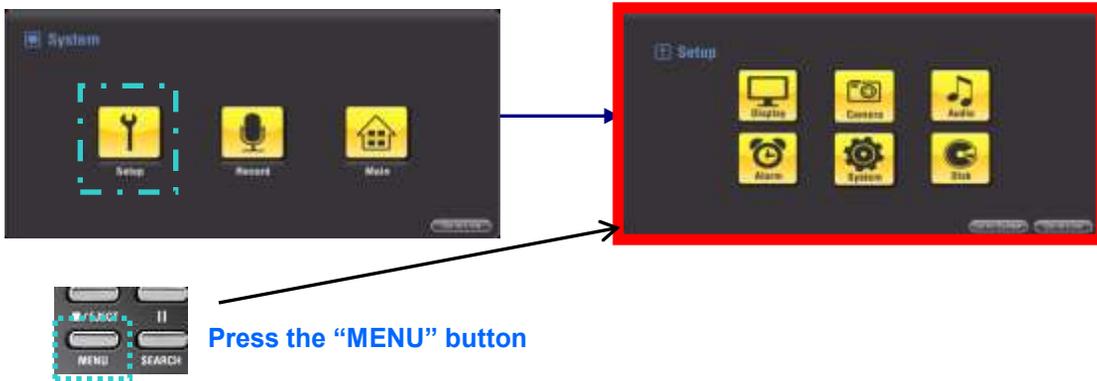


- Search : you can search recording data immediately
- Quick Search : you can go few sec/min ago. **This is single playback while other channels show live**
- Mode Select : Live Channel Division Selection
- PTZ : PTZ Control Menu
- Panic Record : Panic Recording Start/Stop
- Live Pause/Start : Live Screen Pause/Start
- Sequence Start/Stop : Live Screen Sequence Start/Stop

5. System Setup – Display / Camera / Audio / Alarm / System / Disk

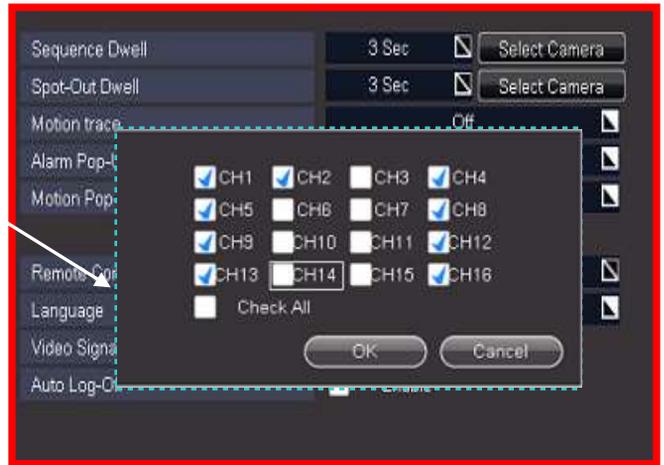
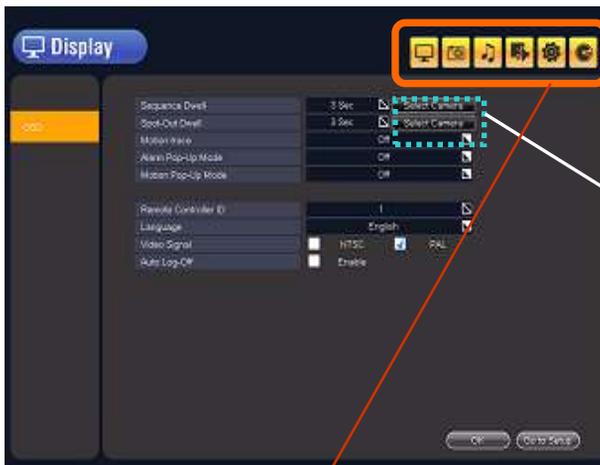


Click "SETUP"



5-1) Display Setup

Set up sequence of main, spot monitor, motion trace, popup for alarm or motion.
 Also choose OSD language. Auto log off makes DVR log off automatically if there is no operation on DVR for more than 2 minutes.



Click "Select Camera" and choose the channels for sequence & spot out dwell



It is very easy to shift menu by clicking the menu icon on the right side like a shortcut on PC.

5-2) Camera Setup - Title / Color / PTZ



Title : Make the camera name using virtual keyboard.

Covert : Set up the covert channel.

Motion Area : You can set up the motion area for each channel. (Multiple sensitivities for multiple areas)

Color is indicated by each sensitivities

Channel	Brightness	Contrast	Tint	Color
#1	50	50	50	50
#2	50	50	50	50
#3	50	50	50	50
#4	50	50	50	50
#5	50	50	50	50
#6	50	50	50	50
#7	50	50	50	50
#8	50	50	50	50
#9	50	50	50	50
#10	50	50	50	50
#11	50	50	50	50
#12	50	50	50	50
#13	50	50	50	50
#14	50	50	50	50
#15	50	50	50	50
#16	50	50	50	50



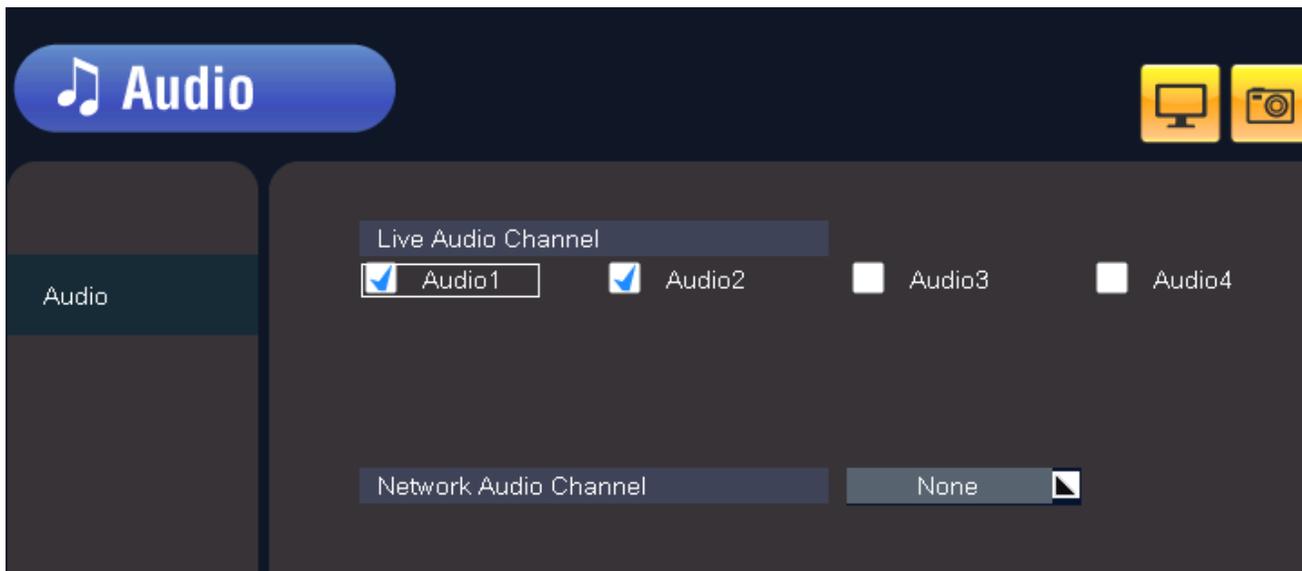
Color : Adjust color, brightness, contrast using mouse wheel

PTZ : Set up preset & swing. Select address & Protocols according to PTZ camera installed



Press "PTZ" button

5-3) Audio Setup

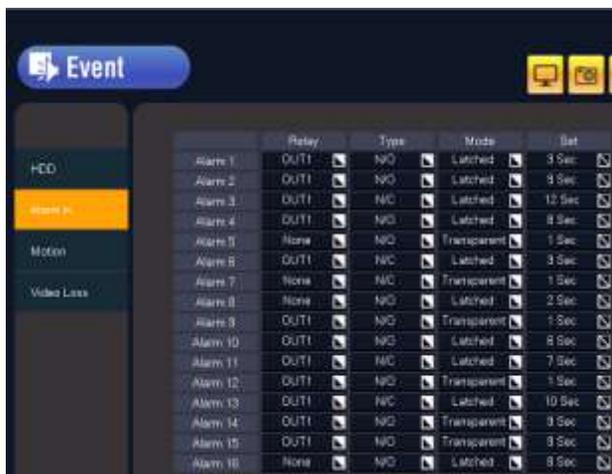


There are 4 Audio In and 1 Audio Out. Check audio channel for living audio monitoring and network audio

5-4) Event Setup – HDD / Alarm In / Motion / Video Loss



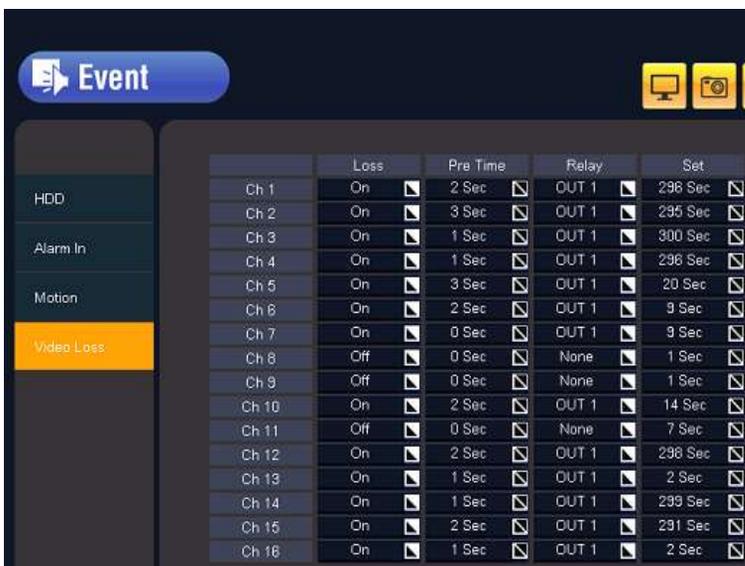
HDD : SMART alarm gives warning when there is something wrong with HDD. You can select check interval, alarm out and duration.



Alarm In : Link any of alarm in to alarm out in Relay

Select N/O (normal open) or N/C (Normal close) for alarm out and Mode – “Latched” or “Transparent”

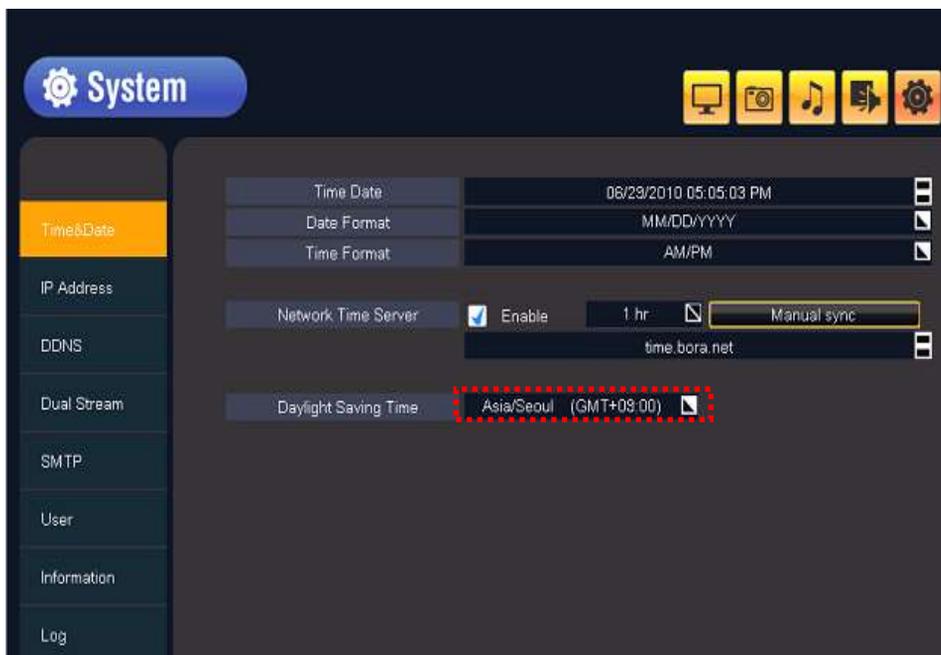
Alarm in #1- #16 are fixed to channel #1-#16 with sequence.



Motion : Link motion on each channel to alarm out in Relay and set up the duration.

Video loss : For video loss event, select pre recording time (before the event), relay, duration.

5-5) System Setup - Time & Date / IP Address / DDNS / Dual Stream / SMTP / Permission / Information / Log



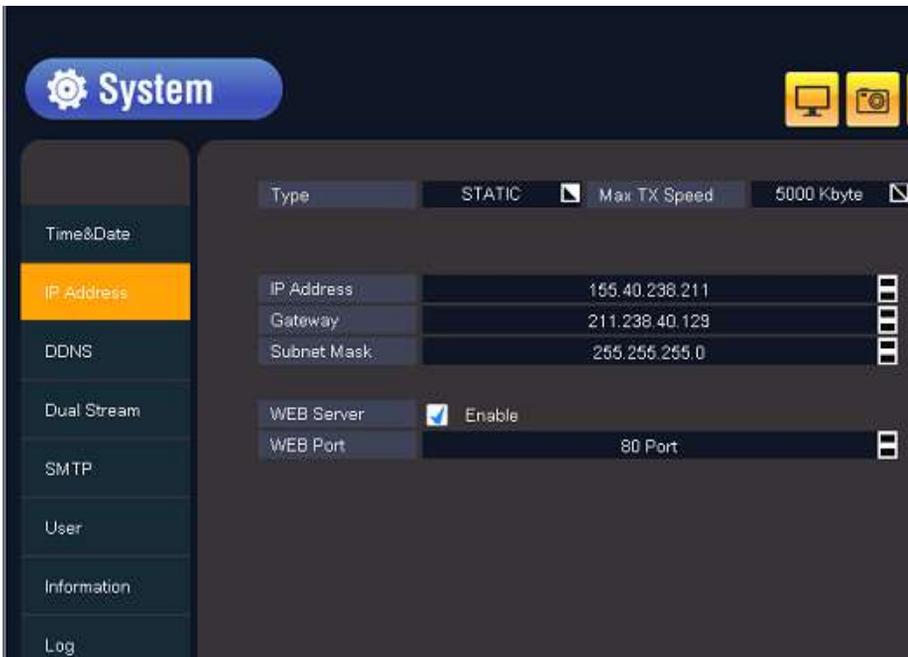
Time & Date :

Select time & date format according to your region.

Register Time server on internet and use it as NTP server.

If you click "Sync" button, DVR will be accurate time from NTP server.

You can choose the time zone.



IP Address :

Select either DHCP or LAN according to your network configuration and adjust transmission speed.

Input IP address, gateway and subnet mask.



Set your DDNS information

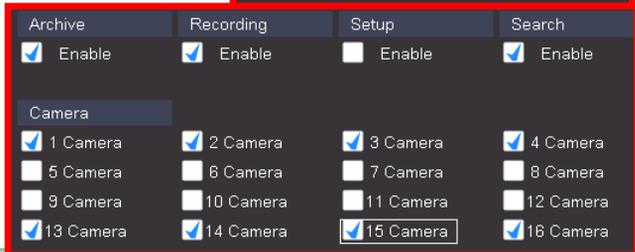
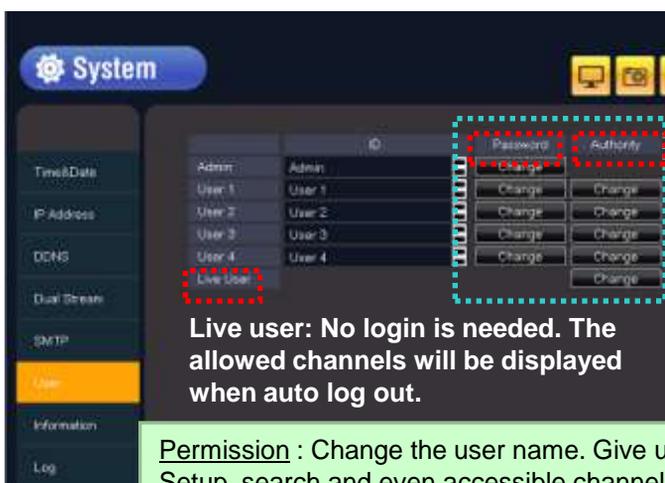


Dual Stream :
Select fps and Image quality depending on your network condition.

For users who have low network bandwidth, we can use dual stream function.



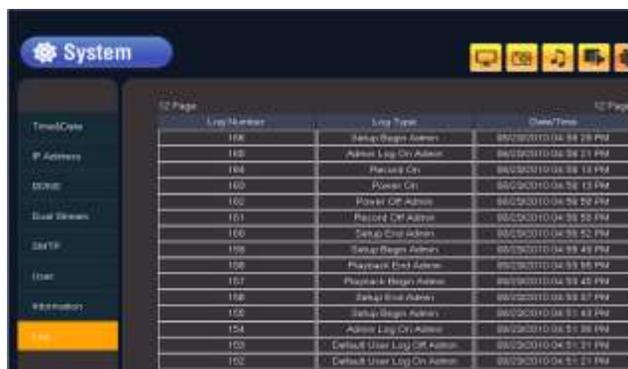
SMTP : This is for email notification.
Register Email server name, ID and PW. You will receive email notification when events occur.
User: It is email address of user who registered email server for DVR
Password: It is password of user's email
From: It is name of someone who sends notification (user puts the name in)
To: It is email address of someone who will receive the notification (user puts the address in)
Type: Select the logs you want to receive via email.
Enable time: Search time which will be sent via email.



Permission : Change the user name. Give user different access right such as archive, recording, Setup, search and even accessible channels can be selected by each user.



Information : There are F/W, H/W, IP, MAC information, Disk capacity, IP address, Frame average. You can do F/W upgrade, factory default and save or load system data.



Log : Each log can be traced with task name, user name and time.

5-6) Disk Setup

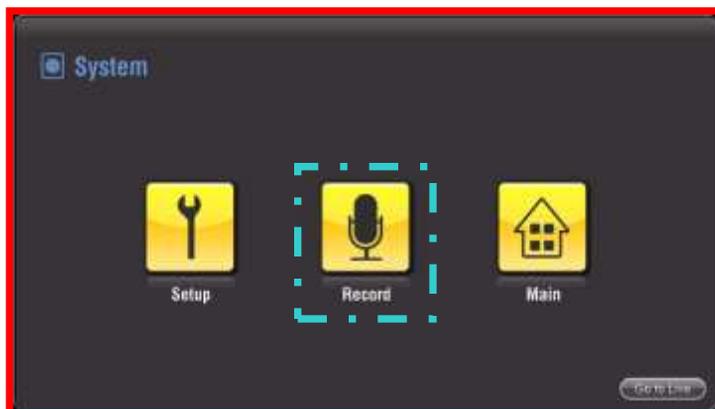


Check HDD information and format HDD

6. Record Setup - General / Normal / Alarm / Motion / Panic / Schedule



Click "RECORD"



6-1) General Rec. Setup



General set up affects all cameras` condition regardless recording mode such as alarm/motion/panic/schedule set up.

Pre Recording Time : select seconds of time for pre recording of events.

Ex> If motion is detected on ch 2(3sec) At 10:00:05, recording will start from 10:00:02

Record Limit Time : time period of each channel's recording.

Ex> If set in 2 weeks, you always get 2 weeks of data.

6-2) Normal Rec. Setup



* Drag the time you want to setup on this timebar(0~23 hours) first

Normal : Normal means recording setup for continuous mode.

You can set up resolution, frame rate, image quality by camera and time (hour).

It is very smart because you can have different recording setup between important cameras and unimportant ones.

Same way for Alarm, Motion, Panic recording setup

6-3) Alarm Rec. Setup



6-4) Motion Rec. Setup

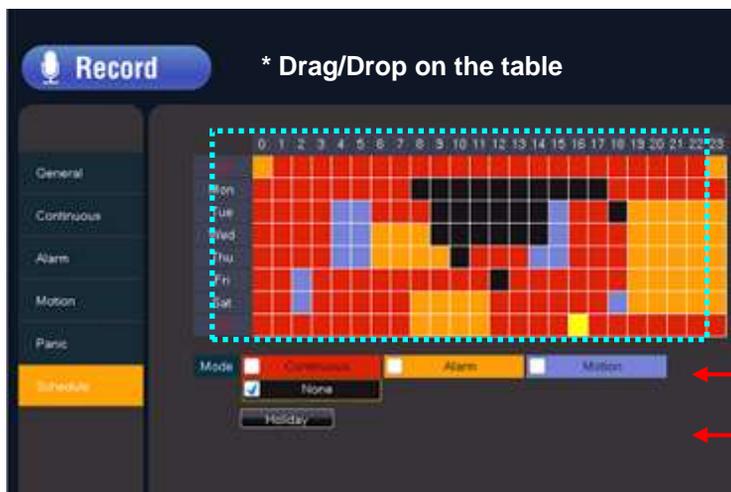


6-5) Panic Rec. Setup



6-6) Schedule Rec. Setup

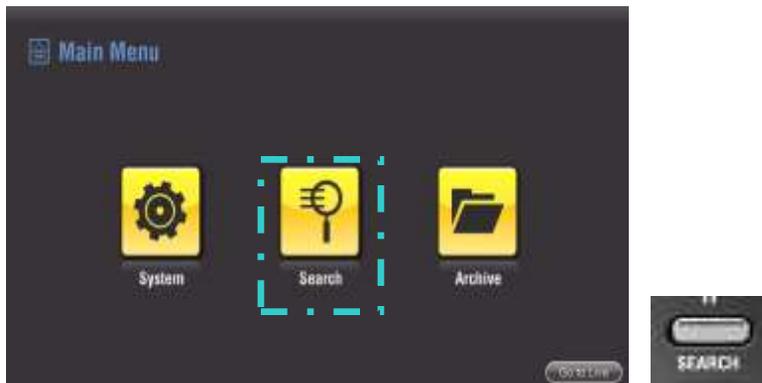
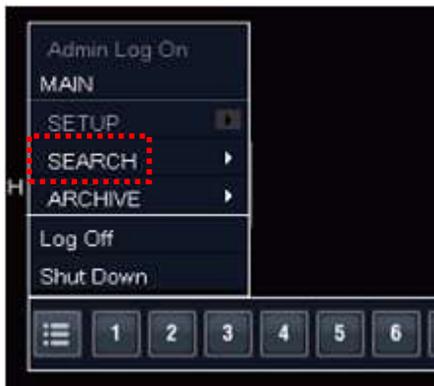
You can easily set up by dragging the table by continuous, alarm, motion, none.



- Each mode is indicated by different color
- User can choose Holiday to follow schedule of Sunday

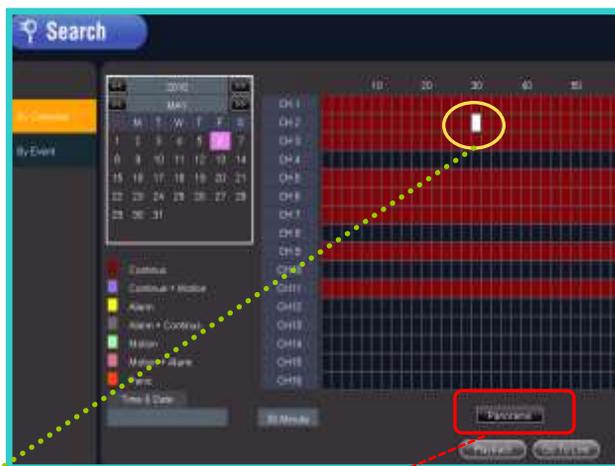
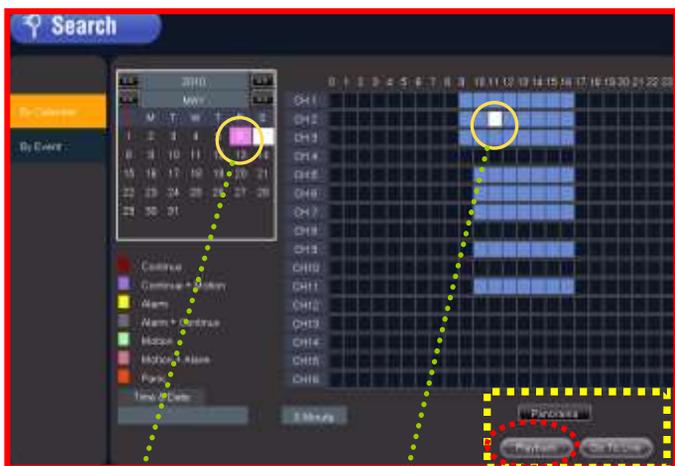
7. Search – Calendar / Event

Click “Search”



(Press the “SEARCH” button)

7-1) Calendar Search



There is recording description such as Continuous, Motion, Alarm, Alarm + Motion and so on. Select **date** on calendar then **hour**, then **minute**. Playback can be done by every minute.

Click “Playback” and you can see the playback for all channels.

**** Panorama Search :** Special search mode. If you click the “Panorama”, It will show the playback frame by frame like panorama. You don't miss very short moment using this function.



7-2) Event Search

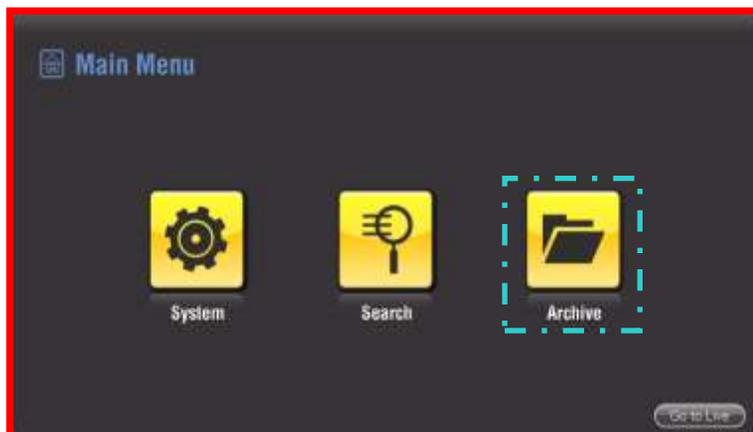
The screenshot displays the Event Search interface. On the left, there is a sidebar with a search icon and the word "Search". Below it, there are two buttons: "By Calendar" and "By Event", with "By Event" being highlighted in orange. The main area shows a list of events under the heading "Event Log". The list contains ten entries, all dated 04/23/2010 at 05:20:33 AM, labeled "BookMark, #16" through "BookMark, #07". Below the list is a "Select Event Log" section with checkboxes for "Alarm", "Motion", "BookMark", "Panic", and "Video loss", all of which are checked. There are also "Prev Page", "Prev", "Next", and "Next Page" buttons. To the right of the event list is a video playback window showing a still image of a grand hallway. Below the image is a timestamp "04/30/2010 09:50:56 AM" and a set of playback controls (stop, previous, play/pause, next, stop). Below the controls is a table with columns "AVI" and "Device". The "Device" column contains the text "MWR Memorette UFD". Below the table are fields for "Start Time" (04/23/2010 05:20:33 AM), "End Time" (04/23/2010 05:20:42 AM), and "File Name". At the bottom right, there are "Playback" and "Go to Live" buttons.

** Event Search : This is very advanced and user-friendly function. Differently from other DVRs, when you click a log, DVR automatically shows video image of the very event log.

You can archive immediately if you want.

You can check event log & video and make a backup **on the same menu**. Backup file is made in AVI format.

8. Archiving – Normal / By Event



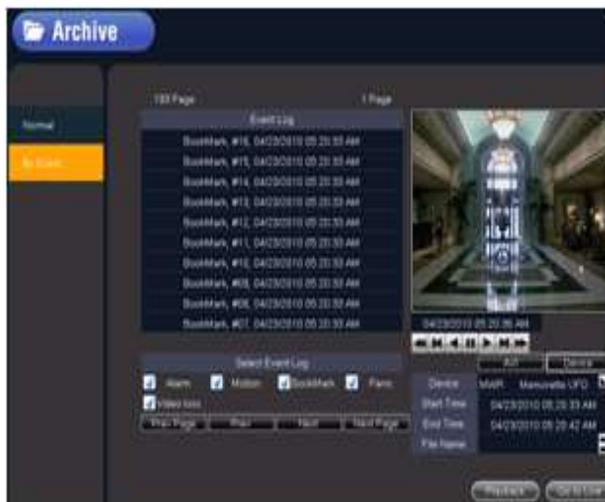
Click "Archive"

8-1) Normal archiving



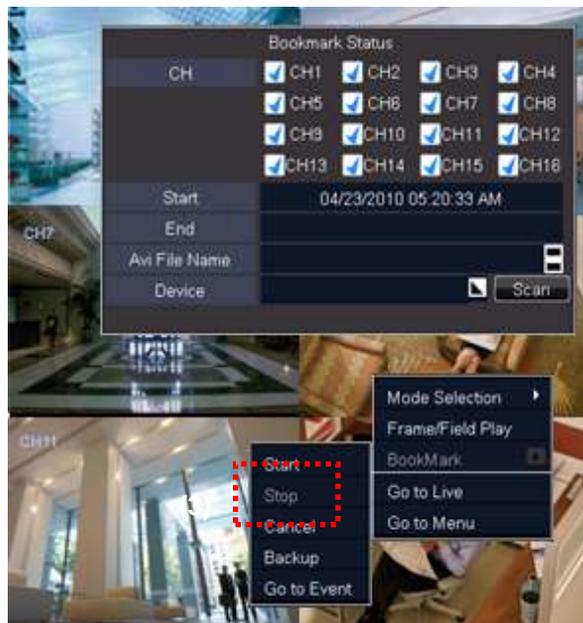
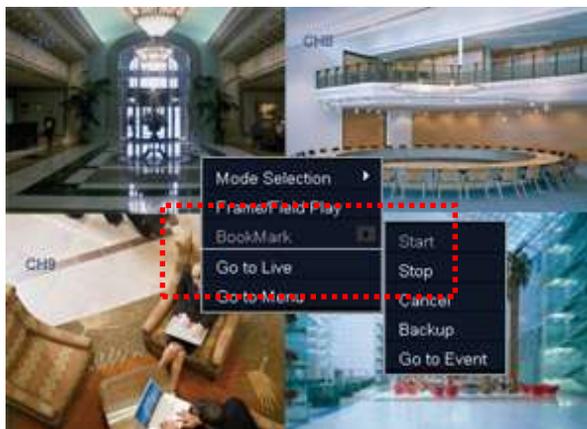
Select date, time, file name (title) and archive channel. (Currently only AVI type is supported.)
You can see the status while you are archiving.

8-2) By Event archiving



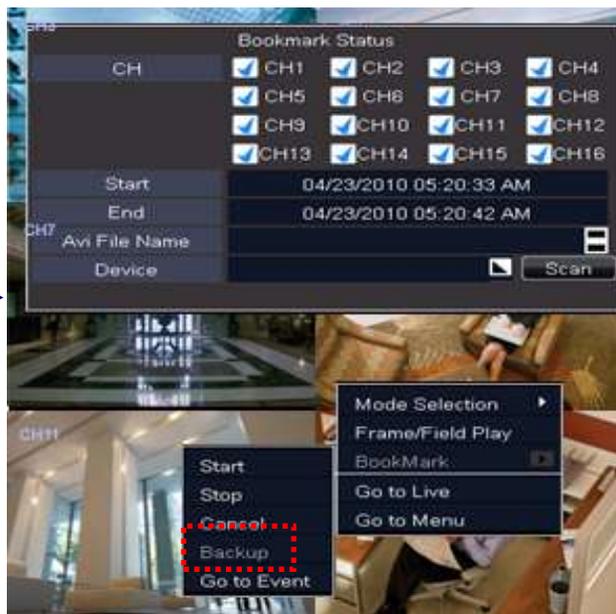
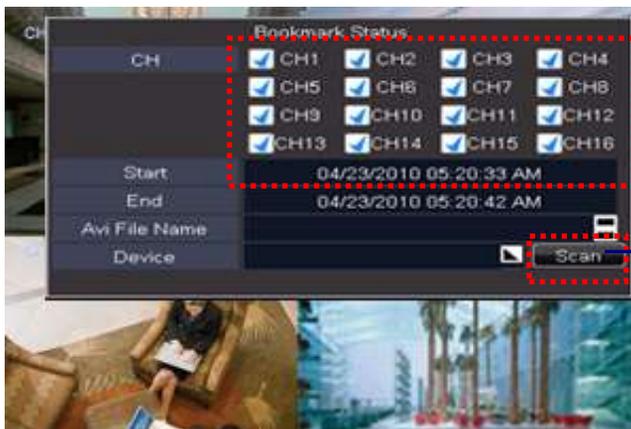
Check event log & video and making a backup on the same page. (same as event search)

9. Book mark



1) On playback mode, click “Book Mark” & “Start”

2) Check the channel and click “Stop”



3) Scan the device and put file name

4) Click “Backup” to Start to archive

When you see playback, you make mark on starting time and on ending time just like you use bookmark when you read books. Bookmarked data can be archived right here if necessary or can stay in event log list. Differently from other DVRs, you don't have to get out of playback to go to archive menu again.