2nd Gen 1080P MDVR 4-8 Cam DVR System
with Internal / External HDD Drive and Dual SD slots

4-8CH MDVR HDD MOBILE DVR

FEATURES:

• Built-in high performance chip sets

• 4CH camera connections, with 4CH Dual 4 pin camera cables, 1 cable connector for LCD monitor, 1CH VGA, PC monitor, HDMI connector ports and 1USB 2.0 / 3.0 port

• 4-8 CH local recording with 1080P resolution in real time

Power:

• Professional In-Vehicle power design,8-32V DC Wide Voltage Range

• Multi protection circuits like under-voltage, short, reversed plug-in

• Smart power management system, shutdown under low voltage, low consumption

Data Storage:

• Special file management system to protect the video recordings

• Proprietary technology to detect the bad track of the hard drive which can make sure the continuity of video and long service life of the hard drive

• Built-in ultra capacitor, avoid data loss and sd card damage caused by sudden outage

• Supports 2.5-inch internal HDD/SSD, maximum 2TB

• Supports external HDD/SSD, maximum 2TB (USB port)

• Supports dual SD card storage, maximum 256GB ea (total max 512GB)

Technical parameter:		
Item	Device parameter	Performance
System		
	Operating system	Embedded Linux OS
	Operating language	Chinese/English
	Operating interface	GUI, supports wireless mouse
	Password security	User password/Admin password
Audio & Video	Video standard	PAL/NTSC
	Image resolution	1080P/720P/960H/D1/CIF
	Playback quality	1080P/720P/960H/D1/CIF
	Image display	single,quad view up to 8 camera views at one time
	Audio Compression	G.726
	Audio recording	Audio & Video real time recordings

Recording & Playback	Recording mode	Manual/Alarm
	Video bit rate	Full frame 4096Mbps，6 classes image quality
	Audio bit rate	8KB/s
	Storage media	Dual SD card slots + internal/external HDD/SSD storage
	Video inquiry	Inquiry by channel/Recording type
	Local playback	Playback by file
Firmware upgrading	Upgrading mode	Manual/Automatic
	Upgrading method	USB port / SD card
Interface	Input options	4ch dual cable interface
	output options	1 VGA PC Monitor video, 1 HDMI connections
	Alarm input	4 digital options (4 Positive/Negative trigger)
	HDD/SSD	1 internal / external (usb) HDD/SSD (up to 2TB ea)
	SD card	2 dual SDXC High speed card slots (up to 256GB ea)
	USB interface	1 USB 2.0 / 3.0 (supports HDD / wireless mouse)
	Ignition input	1 ACC connection
	UART	1 485
	LED Indication	PWR/RUN/GPS/NET
	Disk lock	1
	Debug port	1
	RJ45	1
Function extension	GPS/BD	Support detecting antenna Plug in/Unplug/Short circuit
Others	Power input	8~32V DC
	Power output	5V 300mA
	Power	Standby 3mA Maximum 30W @12V 2.5A @24V 1.25A
	Working temperature	-20 --- 70℃
	Storage	1080N 1.2G/h/channel 720P 1G/h/channel 960H 750M/h/channel
	Dimension	162mm*180mm*50.5mm

User Login-Starting System

Power On/Off

After the power is on, the system will perform a basic system check and will enter the real-time loading display interface. Please be patient. Once the system is loaded, you will see a wizard interface.

Setup Wizard

Setup Wizard：The setup wizard can guide you to set up the NVR general parameters, such as user management, system settings, CMS settings, hard disk format, etc to implement the basic functions of the NVR, if you need to personalize the settings, you can log in to the main menu to set.

Wizard GUI

Well recommended that you can complete the NVR basic configuration via Set up Wizard for first time start up, like the picture below:
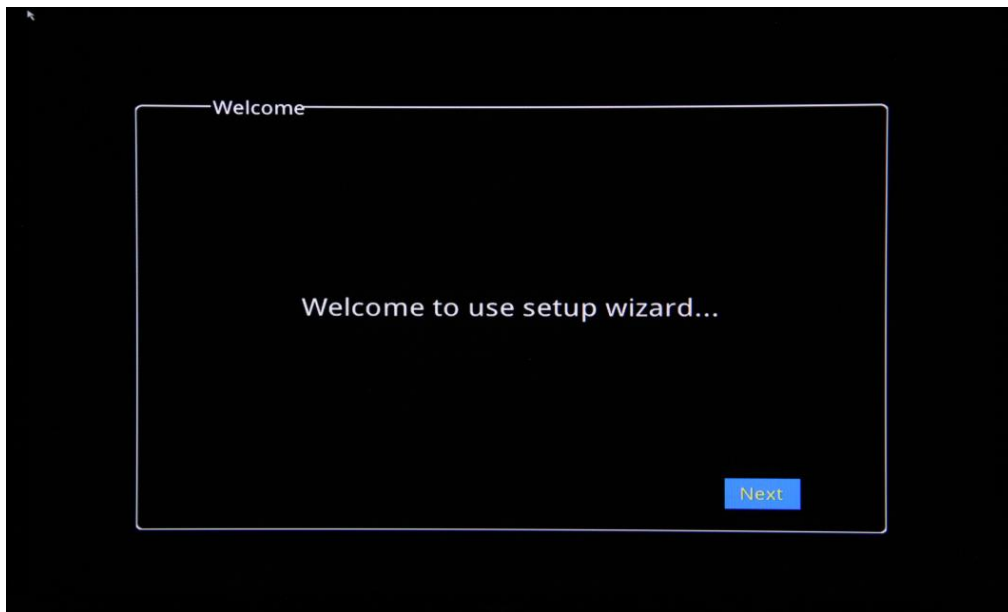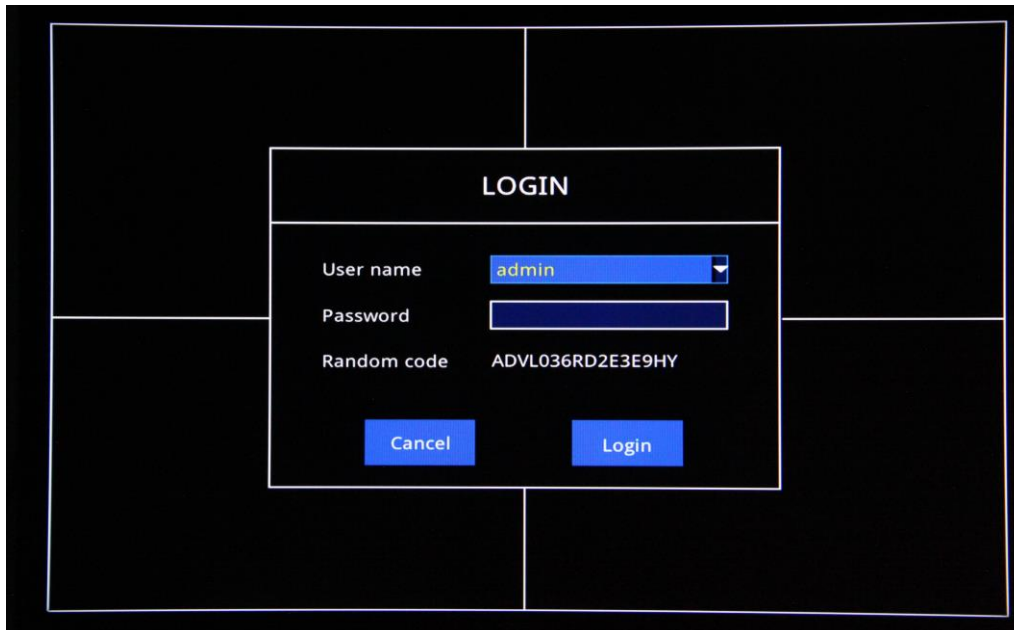
Administrator Login GUI

MDVR Default login - Username: admin, Password: leave blank
Click "Next", as the picture shows:
Noted: Well recommended to add password in Main Menu
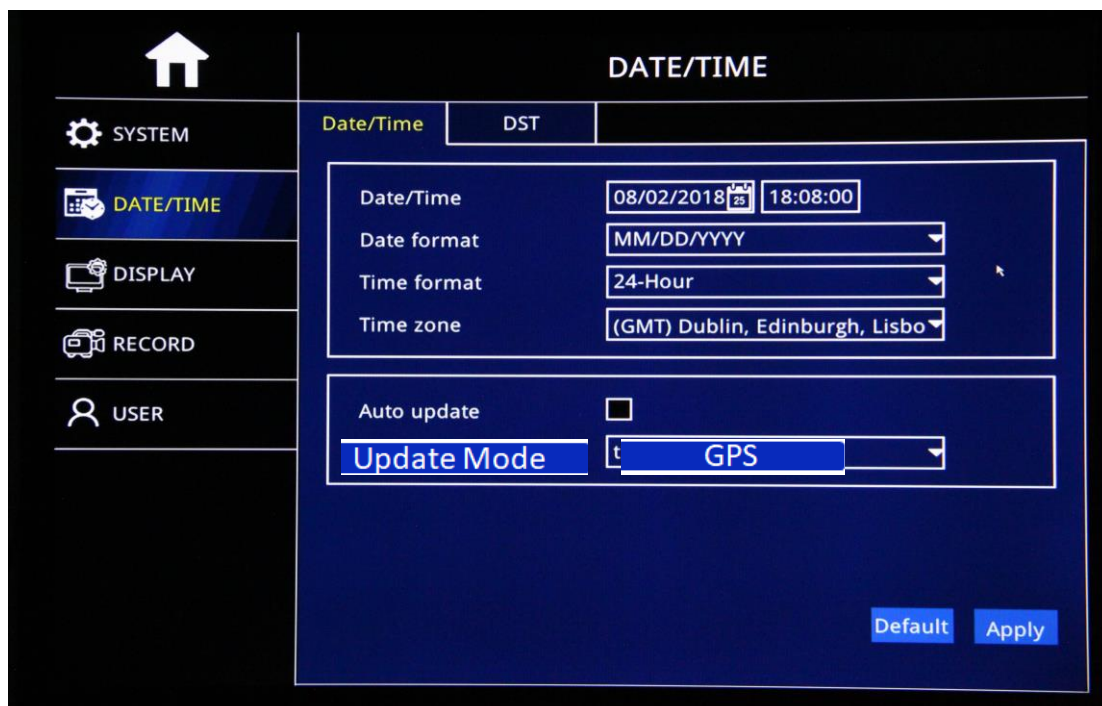
Basic Setup

Date/Time、Date Format、Time Format、Time Zone、PAL/NTSC、Language to set up based on your requirement，Pictured Below：

> ➢ **Date/Time Setup**：Click calendar Button to select current date
> ➢ **Date Format:** "MM/DD/YYYY"、"YYYY-MM-DD""DD/MM/YYYY" Optional
> ➢ **Time Format:** "24-Hour"/"12-Hour" Format Optional.
> ➢ **Time Zone**：Set Up time zone based on your relative time zone
> ➢ **Noted**：After Time Zone Set up, the device time will automatically adjust to be the time of relative time zone.
> ➢ **Video Format:** "PAL"/"NTSC" Optional
> ➢ **Language**：English, Chinese

HDD / SD Setup

HDD: Check HDD / SD capacity

Format HDD：Check "Format" HDD / SD, click "Format" 。

Note：HDD / SD needs to format for 1st time use in Device so that can work normally

Loop Overwrite Recording: 3 Options, "By Day, By Capacity and Never"

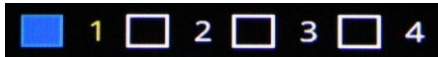After HDD Setup, click "Next" to save all the setup parameters.

# Video GUI Se Up & Function Board Description:
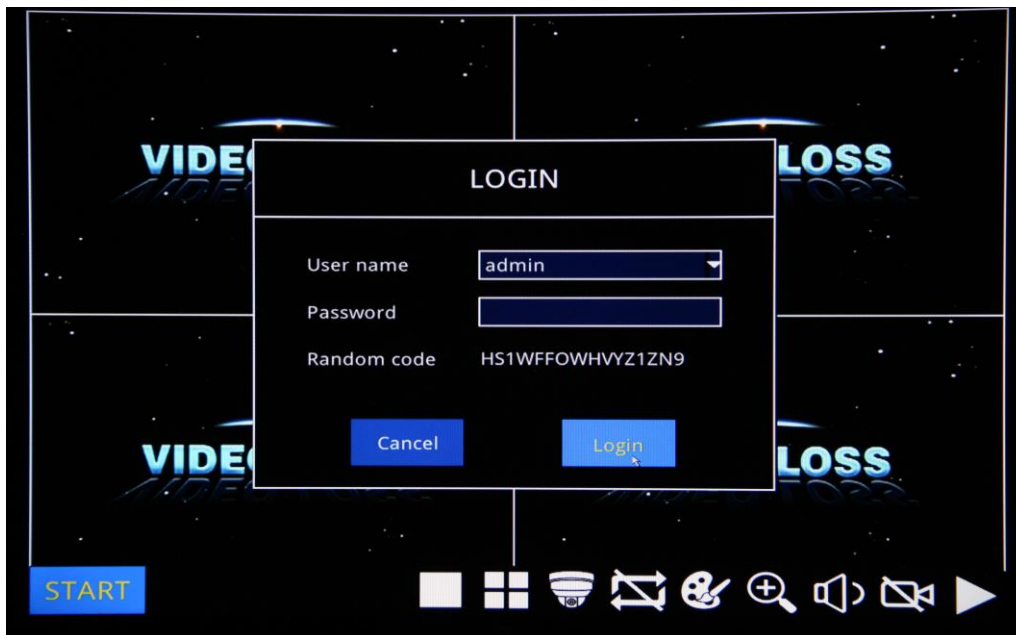
Function Board GUI Below：

Function Buttons：

1） Button：Login MDVRMain Menu

2） Single Channel Display：Click "" to check the channel to amplify, like

the picture below

3） 4CH Display：Display 4 channels video at the same time.

5）:Auto Channel Cruise: After setting up "Auto Sequence" in Main Menu,

Click the button to start/Stop channel Cruise functions

6）　Color Set up：Color Set Up GUI, like Picture below.
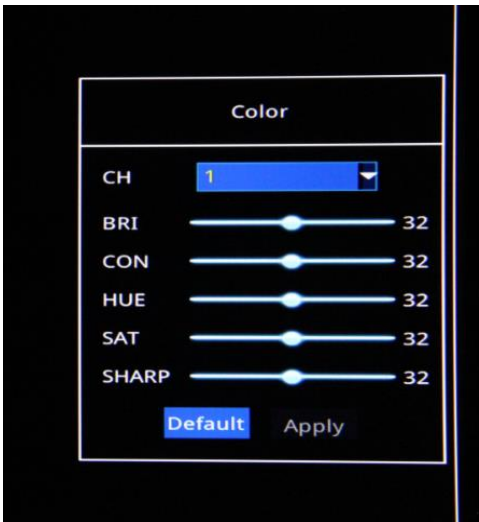
BRI: Set up "Brightness"
CON: Set Up "Contrast"
HUE: Set up "Hue"
SAT: Set Up "Saturation"
SHARP: Set up "Sharp"

CH: To check the Channel which go on Color Setup

7）　Partial enlargement：Drag Mouse to select a special area to auto

enlarge.

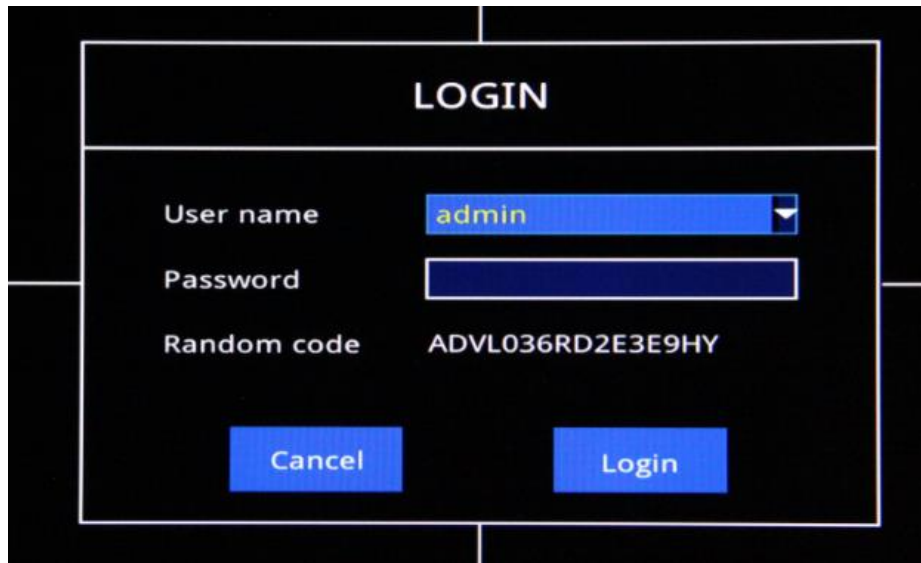8）　Audio Adjustment：To control Audio output volume, like Monitor audio

output

9）Start/Stop Record ：Start/Stop Video record。

10.　Record Query：Click the button to open "Playback" GUI to Query and
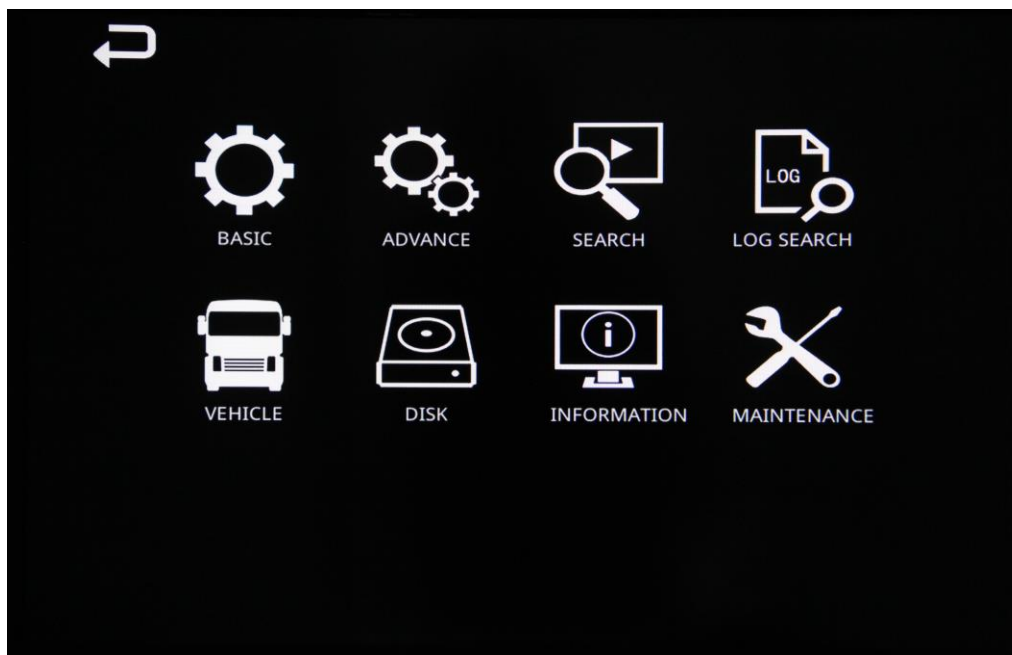
Playback recorded video.

System Operation

User Login- defaults username: admin / password:leave blank

Click "Start" to show Login GUI and input username and password to log in.

Main Menu Operation

After login, left click mouse or use remote functions to come into main menu

- ➢ Basic Setup：Including：System Setup，Date/Time Setup，Display Setup, Record Setup and User setup。
- ➢ Advance Setup：**WILL NOT BE USED FOR THIS SYSTEM (VIEW OUR 4G/WIFI MNVR SYSTEMS IF YOU ARE LOOKING FOR REMOTE VIEWING ACCESS**
  https://www.dashcam.co/collections/live-streaming-4g-wifi-camera-systems
- ➢ Video Query：Search and Display Recorded video.
- ➢ Log Search：Query the operation Logs and Alarm log
- ➢ Saved in Local System.
- ➢ Vehicle Management：Vehicle info and Delay time setup
- ➢ Disk Management：HDD and USB Storage.
- ➢ Information: Check Device, Network, Online User, Record and Cams info
- ➢ Maintenance：Auto Maintain, Firmware Upgrade, Standby, Reboot, Export/Import Setting

Basic System Setup
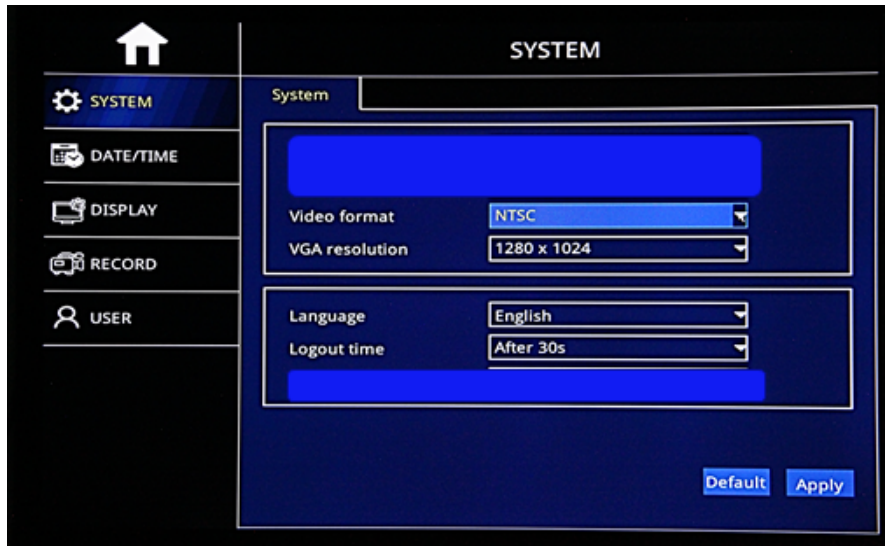
- ➢ Video Format：PAL/NTSC adjustable.
- ➢ VGA Resolution：1024×768、1280*1024、1366*768、1440*900、720P and 1080P adjustable based on your monitors
- ➢ Langue：Chinese，English
- ➢ Logout Time: "30s" "1 minutes" "3 minutes" "5 minutes" "10 minutes" "Never" adjustable to log out system.
- ➢ Noted: Click "Default" to return
- ➢ Factory default setup.

System Date/Time Setup

- ➢ Date/Time Setup：Click calendar Button to settle current date
- ➢ Date Format："MM/DD/YYYY"、"YYYY-MM-DD""DD/MM/YYYY" Optional
- ➢ Time Format："24-Hour"/"12-Hour" Format Optional.
- ➢ Time Zone：Set Up time zone based on your relative time zone
- ➢ Noted：After Time Zone Set up, the device time will automatically adjust to be the time of relative time zone.
- ➢ Auto Update：After check "Auto update" to start the function
- ➢ Device will Calibrate and synchronize the time of Time Server
- ➢ Update Mode: GPS / NTP
- ➢ Noted: After setting up, Click "Apply" to make it effective.

DST Setup

- ➤ Enable：After check, Enable DST time work
- ➤ Mode：Check "Week" or "Date" Mode to settle DST Start and End time
- ➤ Offset：Based on Specific DST time, Faster or Slower 1 hour or 2 hours
- ➤ From：DST Time Starting time
- ➤ To: DST time Ending time

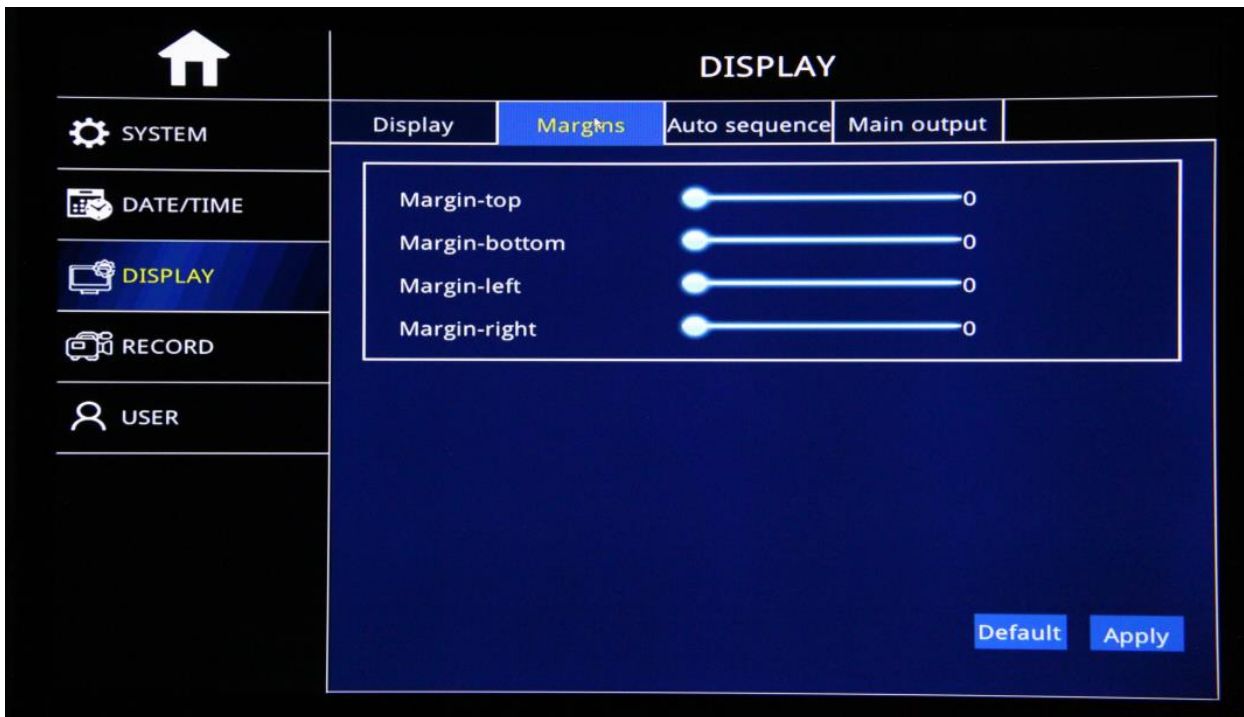- ➤ After the setup, click "Apply"

Display Setup / Channel Setup

- ➤ CH：Channel No.
- ➤ Channel Name：Change Channel Name to Display
- ➤ Color：Click "Setting" to settle Brightness, Contrast, Hue and Saturation, After Setup, click "Apply"
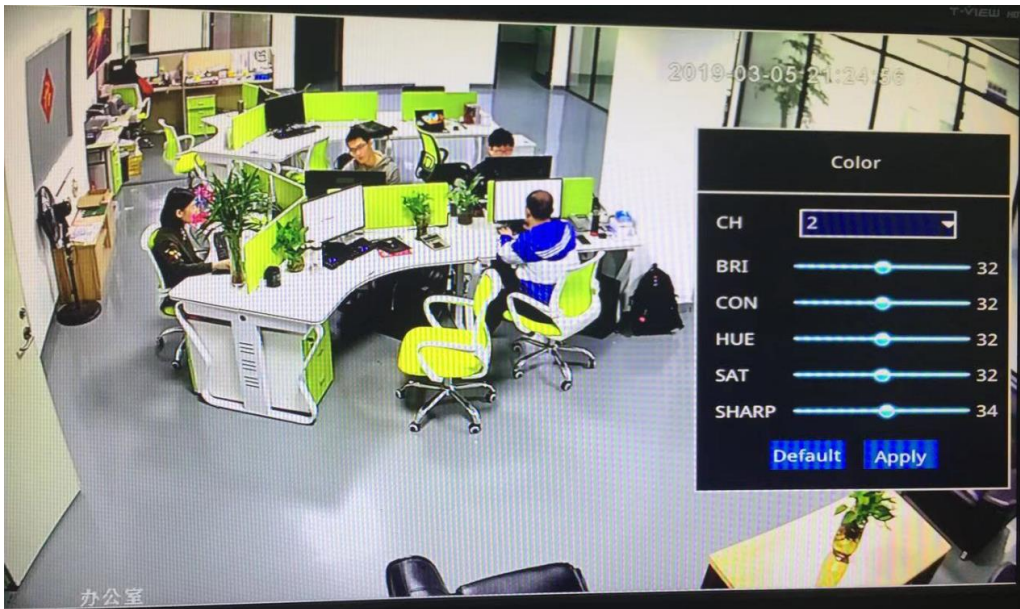
- ➤ OSD：Click "Setting" to Settle OSD time and Name
- ➤ Copy：After Set up 1Ch well, copy the same setting to Specific Camera or All cameras

Margin Setup

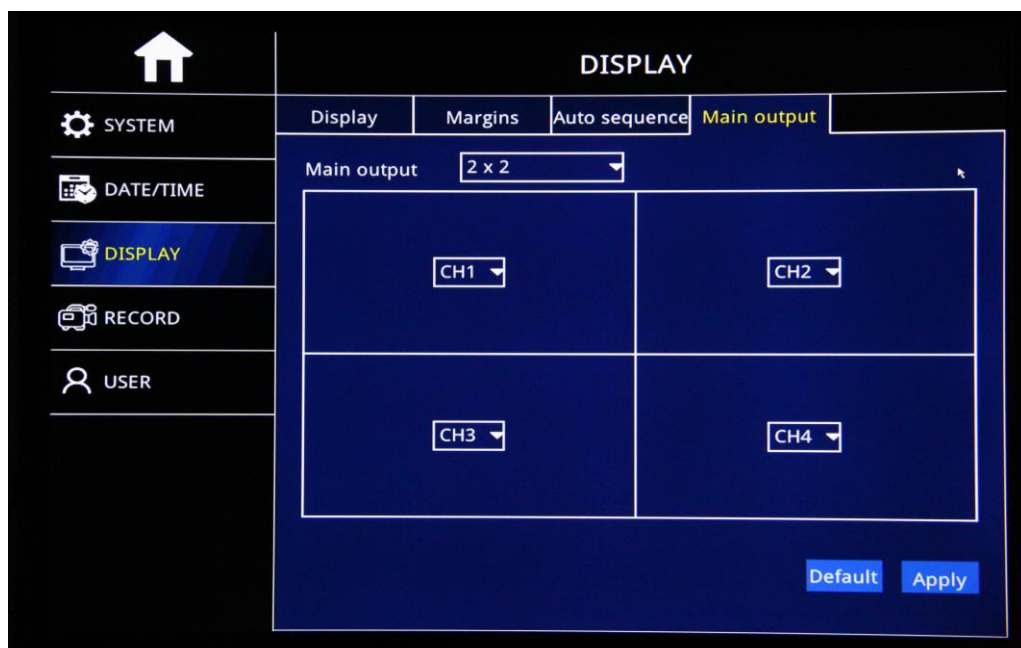- ➤ Margin Setup：Settle Video Display Margin on Monitor

Auto Sequence

Optional 2 templates or Customize auto Sequence channel to cruise
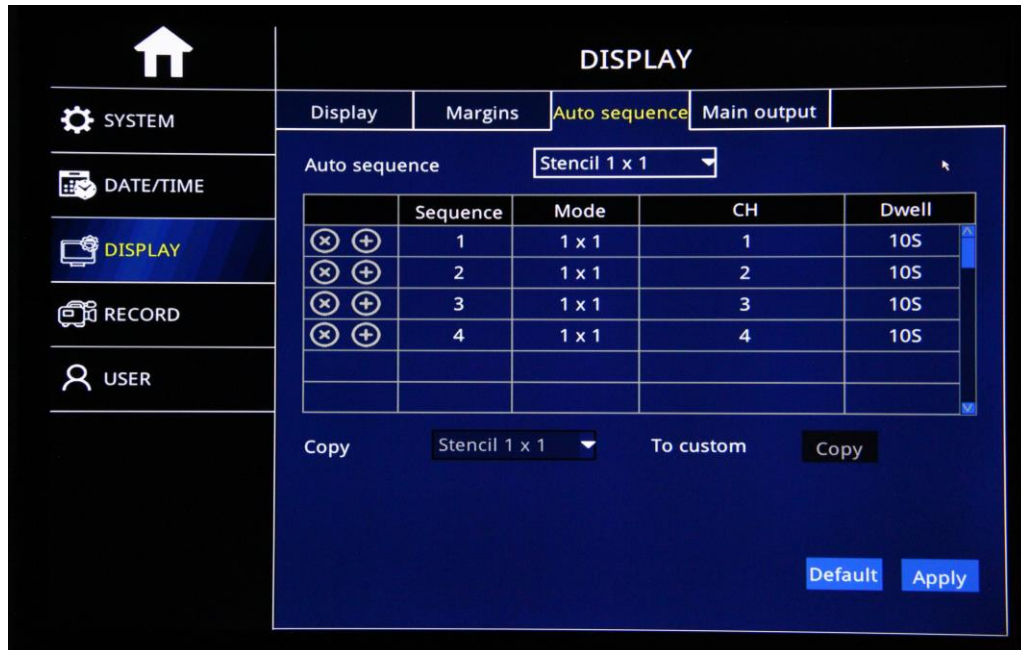
- ➢ Sequence： Add auto Sequence No.
- ➢ Mode：1*1、2*2 Model Optional。
- ➢ Channel：Settle any non-repeating channels.
- ➢ Time：Cruise interval time:1-300S Optional.

Main Output

- ➢ To Set up default split screen to show on Monitor.
- ➢ Default Main output:2*2 output image, and 1*1 Output image Optional (Single Image)

Record Basic Setup

- ➢ Channel：Video Channel
- ➢ Enable：Check Enable to Start Channel record function, or No Record
- ➢ Audio：Check Audio to start Audio record function or No audio record
- ➢ Record Mode: "Always" and "Schedule" Mode Optional.
- ➢ Copy：After one channel setup well, copy the channel same setup to specific channel or all channels.

Main Stream
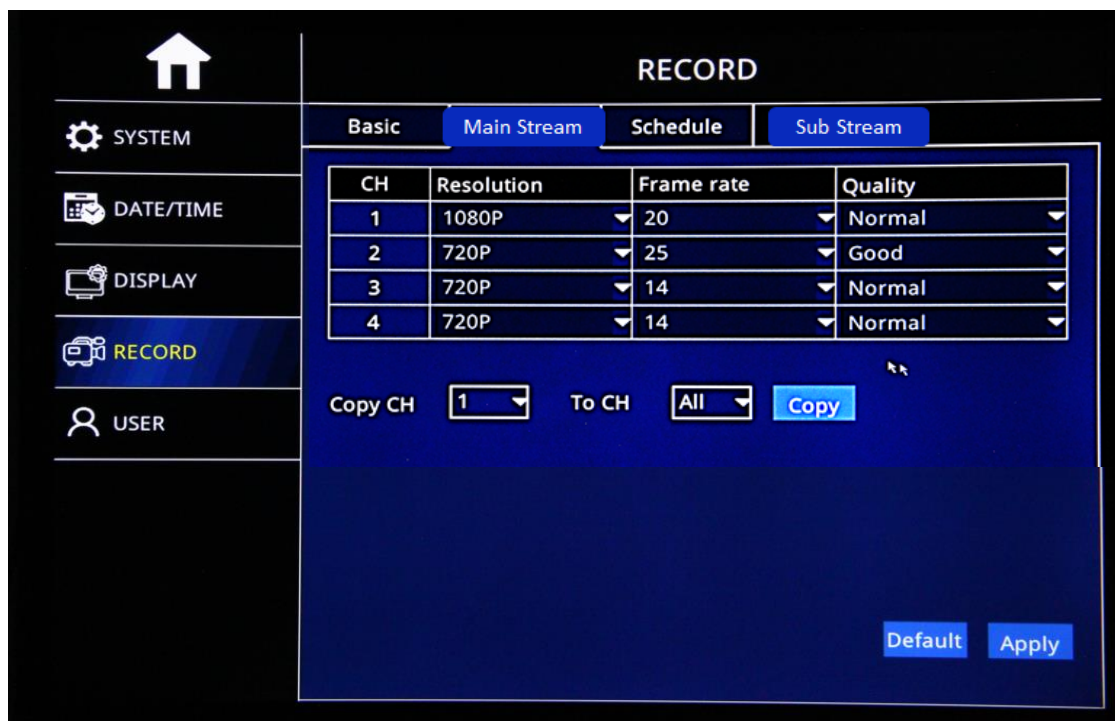
- ➢ Channel：Video Channel
- ➢ Resolution：CIF/720P/1080P Optional
- ➢ Frame Rate：PAL：1-25Frames，NTSC：1-30 Frames Optional
- ➢ Video Quality：Best，Better，Good，Normal，4classes Optional
- ➢ Copy：After one channel setup well, copy the channel same setup to specific channel or all channels.　Best, Better, Good, Normal
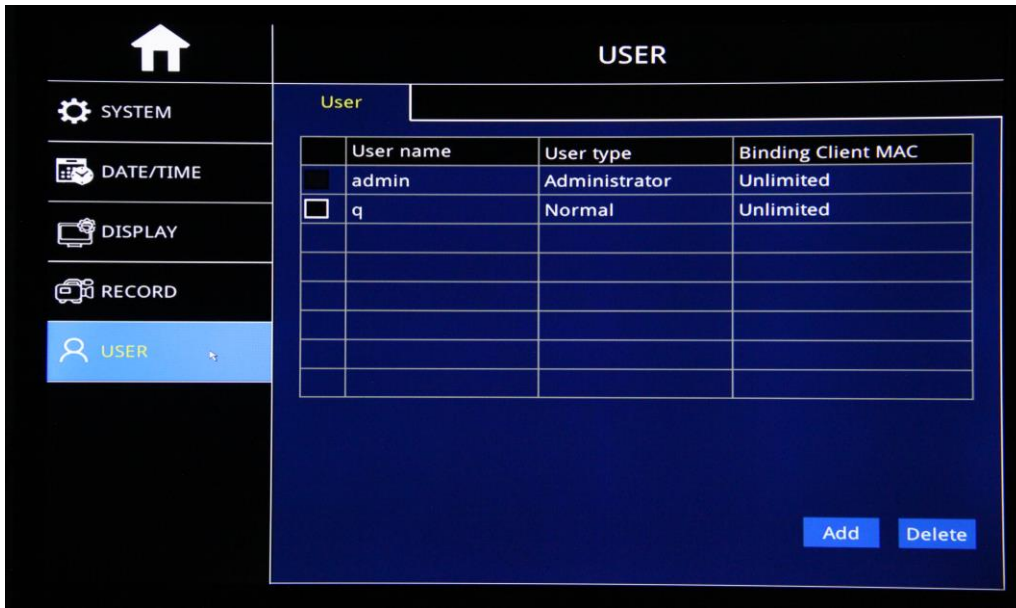
Schedule
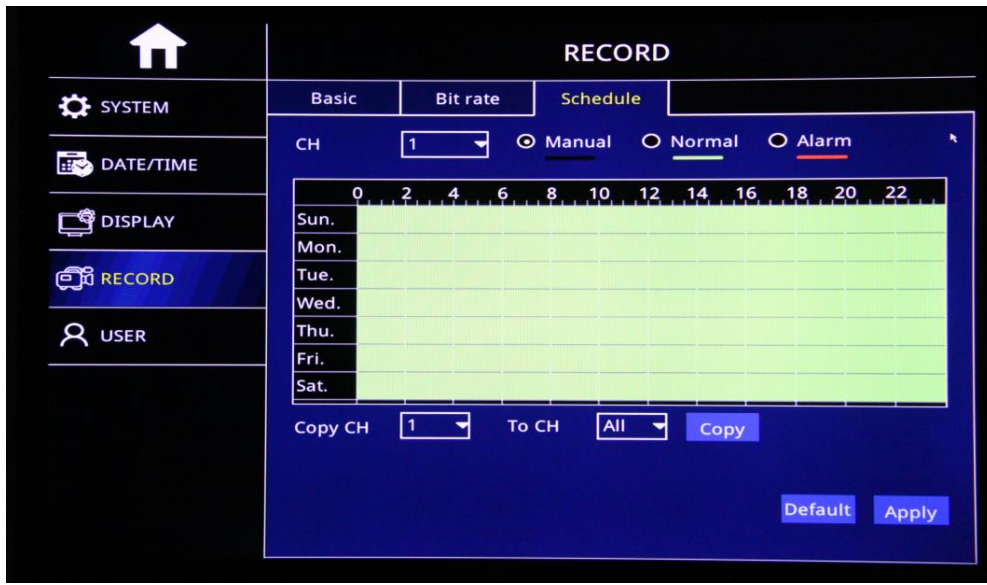
> Copy：After one channel setup well, copy the channel same setup to specific channel or all channels.

Add User Setup

> After Stat up, Factory default real-time record
> Channel：Video Channel
> "Manuel","Normal"and"Alarm"Mode optional
> Double Click Record Setup Area to settle schedule time.

Add New user and configuration light
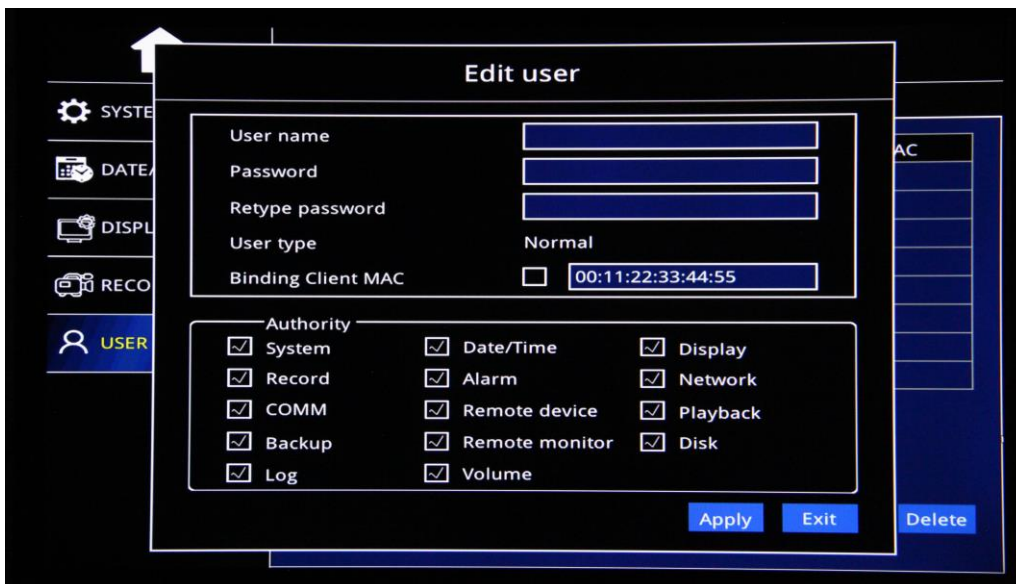
Basic：Setup Username，Password，Retype Password, User Type Authority：Settle the right 4 Advance Setup

*Advance Tab Alarm Setup   Motion Detection

Alarm Trigger when there is an object movement in the specified detection area.

➢ CH：Video Chanel。
➢ Enable：Check to start Motion detection function
➢ Sensitivity："1"——"8"Optional,"1" means highest Sensitivity，"8"means lowest Sensitivity
➢ Area：Settle Motion detection area

*ADVANCE TAB- ALARM & CAPTURE IS THE ONLY FEATURE THAT WILL BE USED ON THIS SYSTEM

➢ Green Color：Represent Motion detection area, while object move,
➢ It will move.
➢ Grey：No-Motion detection Area, No Alarm trigger
➢ 5)Schedule：Pls kindly refer Page39 Sensor Alarm Setup

Sensor Alarm

I/O Sensor Alarm
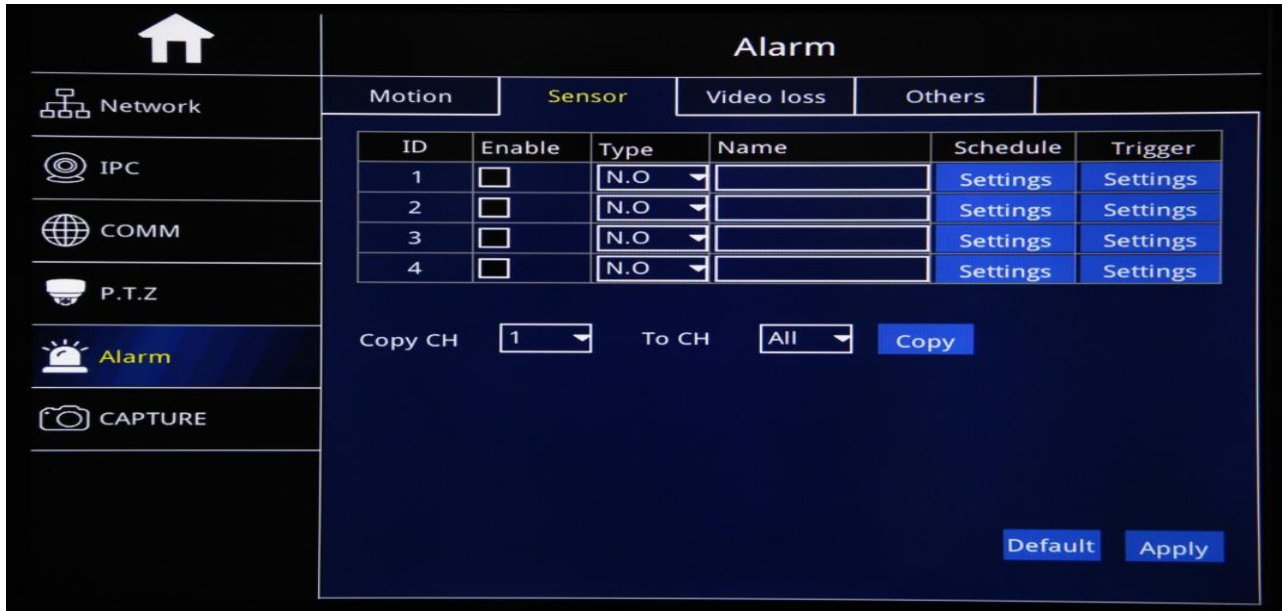
- ➢ ID：Sensor Serial No.。
- ➢ Enable：Check to start Sensor alarm function
- ➢ Type：No.O: Keep Open, NO.C: Keep Close to setup
- ➢ Sensor Name：Edit Sensor Name
- ➢ Settle Alarm time range, Check "None" or Alarm to
- ➢ To drag mouse to settle time zone, Red Color means Alarm time,
- ➢ Black Color means No Alarm time。
- ➢ Copy: Copy the same setup to specific CH or All CHs.
- ➢ After Setup, click "OK".
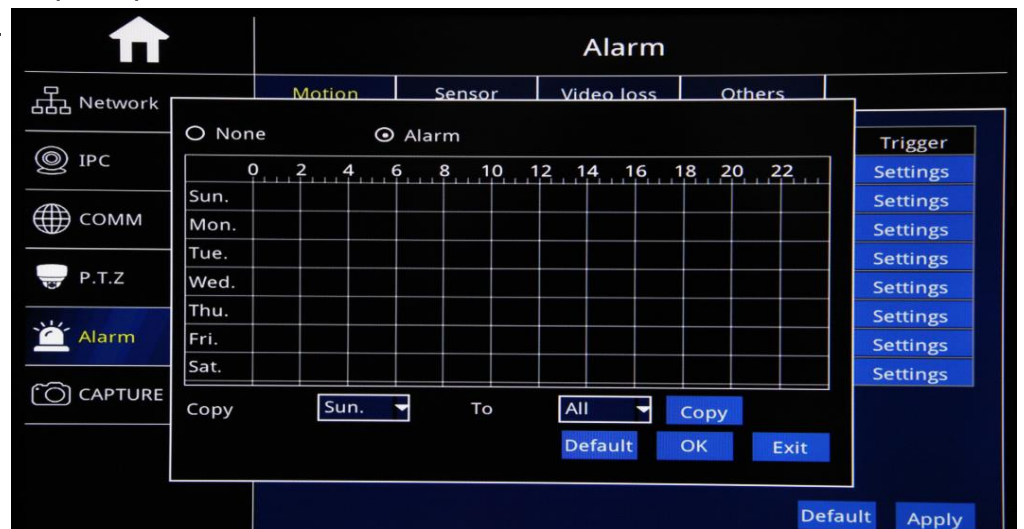
- ➢ Record：Check relative channel for alarm linkage record
- ➢ Snapshot：Check relative channel for alarm linkage snapshot
- ➢ Alarm output：Check to start Alarm linkage output function
- ➢ Alarm Output Duration:10S,30S,1 minute,3 minutes,5 minutes,10 minutes,15 minutes,30 minutes optional.
- ➢ Buzzer：None,10S,30S,1 minute,3 minutes,5 minutes,10 minutes, 15 minutes,30 minutes optional.
- ➢ Pop-Up Screen：Settle Amplifying Channel,1-16 channel Optional
- ➢ Pre-Record：None,10S,30S,1 minute,3 minutes,5 minutes,10 minutes, 15 minutes,30 minutes optional.
- ➢ After Setup, click "OK"
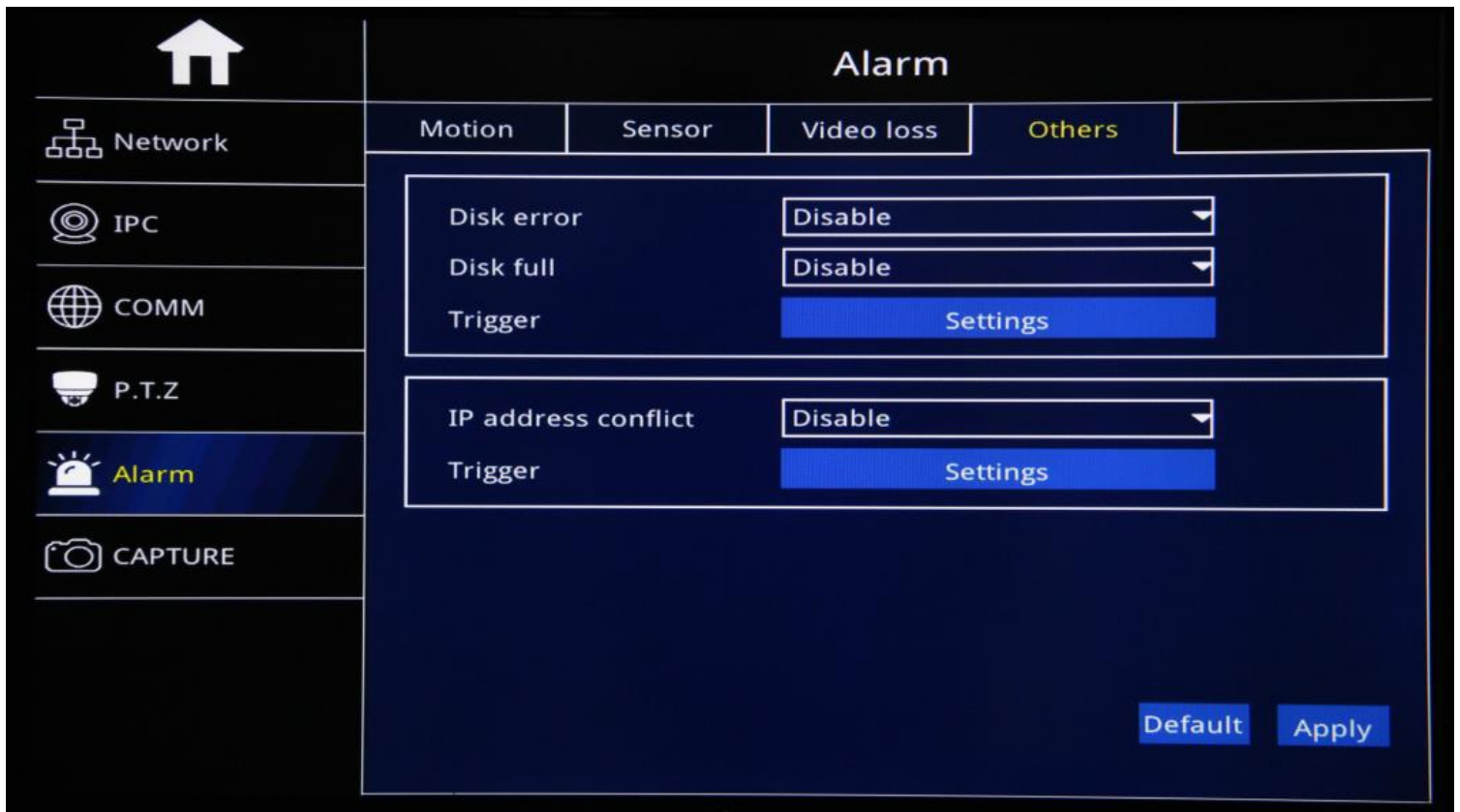
Video Loss - Alarm Trigger while Video loss

- ➢ CH：Video Channel - Enable: Check to start Video loss function

Other

- ➢ Disk Error：Enable: Start Disk Error Alarm, disable: Shut off Disk Error Alarm
- ➢ Disk Full: Start HDD Full Alarm, disable: Shut off Disk Full Alarm
- ➢ Trigger: Alarm Linkage while alarm trigger and click "Setting" to set up. Pls kindly refer page 40 to go on setting.
- ➢ IP address conflict：Enable: Start IP address conflict alarm, disable: Shut off IP address conflict alarm
- ➢ Trigger: Alarm Linkage while alarm trigger and click "Setting" to set up. Pls kindly refer page 40 to go on setting.

Capture

- ➢ Click "Add" to go on "Capture" setup.
- ➢ Channel Linkage: Settle linkage snapshot channels

Search

➢ After Login "Search", will auto search out current recorded video file and show on the right corner, like the picture above, If NO current recorded video, will be empty.
➢ Calendar in Left Corner:
  A.Green Color Date means it has recorded video,
  B.Blue Color Date means it is Current Day video,
  C.Grey&White Color Date means it has not video,
  D.Red Color date means it has Alarm videos
  Noted: For the1st time to login, System show Blue Color date,ie.Current Day.
➢ Record Type：All, Alarm and Normal Optional
➢ CH：Settle CHs to Search；
➢ Search: After the setup above (including Start time and End time Setup), Click search to search out Blue Color Date video and show on right color box.
➢ Back UP: Back Up recorded video into U-Disk or external HDD in H.264 or AVI format.

➢ Playback: After setting the "Start time" and "End time", Click "Playback "to show the picture as follows:

	CH	Start time	End time	Type	Status
☑	1	00:00:00	09:55:39	Normal	Unlock
☐	3	00:00:00	09:55:39	Normal	Unlock
				Normal	Unlock
				Normal	Unlock
				Normal	Unlock
				Normal	Unlock
				Normal	Unlock
				Normal	Unlock

Selection — CH
☑ 1 ☑ 2 ☑ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

Remark:The maximum playback channel is 4.

Clear   Playback   Exit

Feb. ◀ ▶ ◀ 2019 ▶
Su Mo Tu We Th Fr Sa
27 28 29 30 31 1 2
3 4 5 6 7
10 11 12 13 14
17 18 19 20 21
24 25 26 27 28
3 4 5 6 7

Start time 00:00:0
End time 23:59:5
Record type All
CH ☑ ☑ 1 ☑ 2 ☑ 3 ☑ 4
☑ ☑ 5 ☑ 6 ☑ 7 ☑ 8

Search Backup Playback   First Prev Next Last Backup Lock Unlock

"Clear": Clear out already checked Channels once a time
"Playback": Playback already checked channels

 After click "Playback" Button, it will show the Playback GUI below,which has 2 parts: Control Bar and Time Bar。
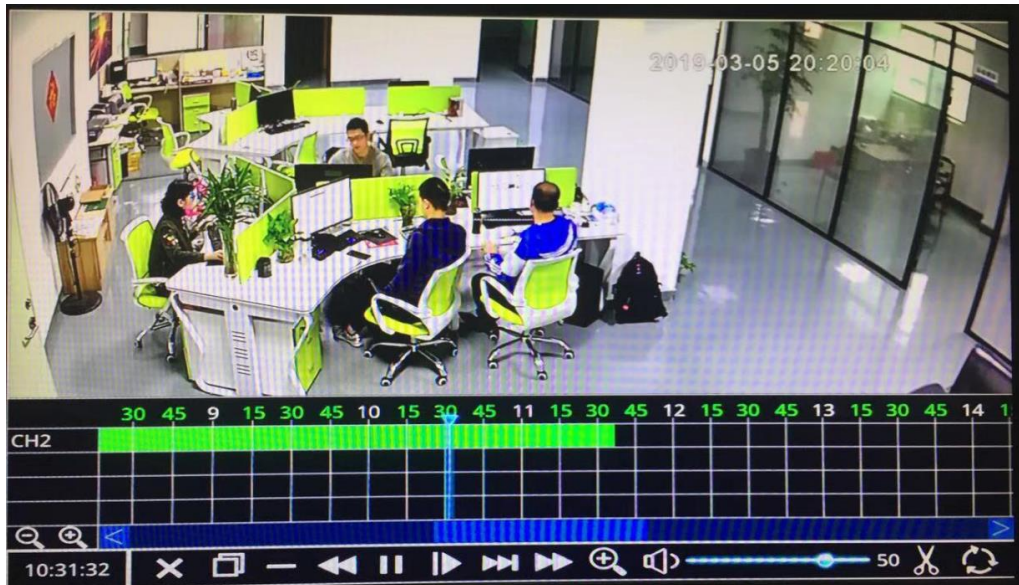
Control Bar:

: Exit Playback

: Reduce—Zoom In Control Bar

:Minimize—Zoom Out Control Bar

:Fastback—Fast Play backward

:Pause

: Playback Frame by Frame

: Slow Play

: Fast forward Play

:Digital Zoom—Drawing a Special area to zoom int

:Volume—Adjust audio output volume

:Cut out Video, 1st click to start Cut out video and become blue; 2nd Click to end cutting

function and return back to normal

:Back up the playback video

- ➢ Type: "All", "Alarm" and "Device "Operation Logs Optional
- ➢ Back Up: Click Back Up button to copy Relative Logs into U-Disk via USB Port

Time Bar:

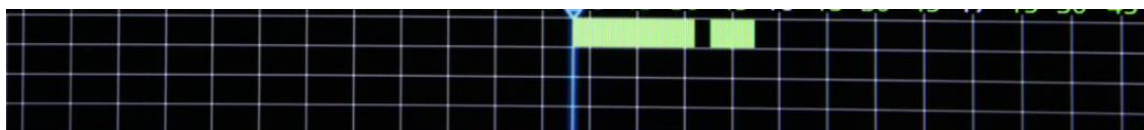Clearched Logs on Right corner box.

 : Zoom in / out Time

 Bar Time Area:

12 15 30 45 13 15 30 45 14 15 30 45 15 15 30 45 16 15 30 45 17 15 30 45

White Number means Hour, like the example above:12,13,14,15,16,17

Green Number Means Minutes, Like the example above:15,30,45

Video Area:

Black Color：No Video recorded

Green Color： Normal Video recorded

Red Color: Alarm Video recorded

- ➤ Lock：Lock file to protect and No delete. Check Video file and Click "Lock", the "Status "shows "Lock", Done.
- ➤ Unlock：Unlock the lock file to release the protection. Check Lock file and click "Unlock", "Status" show "Unlocks", Done.

Log Query

- ➤ Type: "All", "Alarm" and "Device "Operation Logs Optional
- ➤ Back Up: Click Back Up button to copy Relative Logs into U-Disk via USB Port
- ➤ Clear： Clear Off searched Logs on Right corner box.

Vehicle info


> ➢ Company Name：The company Name which device belongs to
> ➢ Vehicle License：Vehicle License Plate Number where device is installed.
> ➢ Driver Name：Driver Name of the Vehicle；
> ➢ Line Number：The Line Number of the Vehicle Running

Power Setup
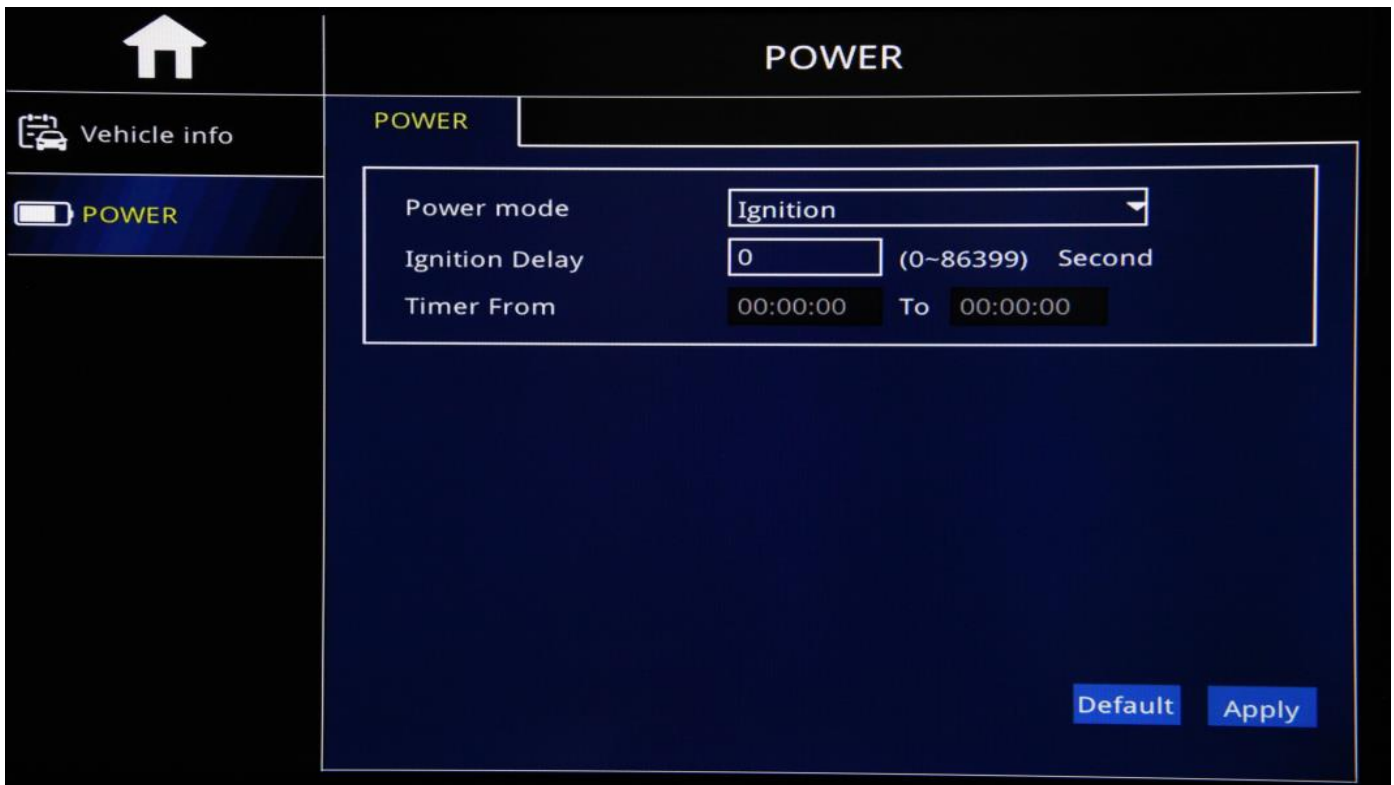
- ➤ Power Mode: Ignition /Timer Mode Optional and Default Ignition Mode.
- ➤ Ignition Mode: After the ignition start, device start to record at the same time.
- ➤ Timer Mode: The device starts to record at the settled time
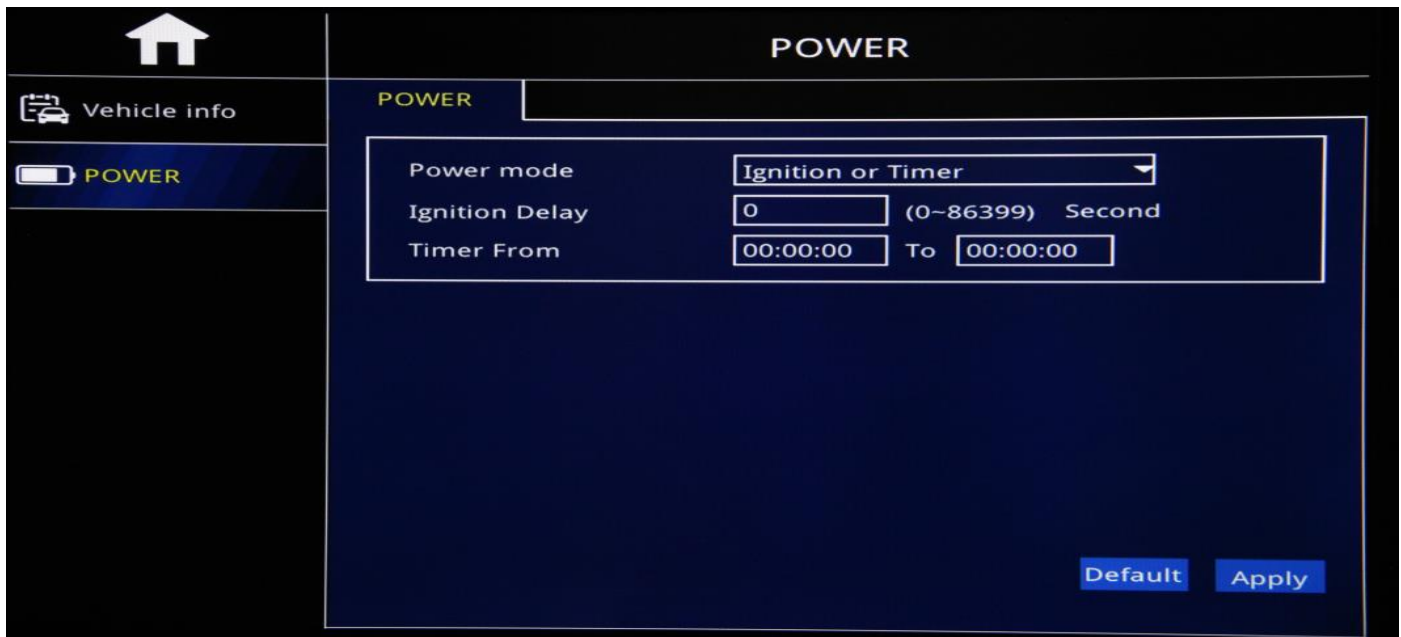
- ➤ Ignition Delay：While user check Ignition Mode
- ➤ Can settle up ignition Delay, time Ranging 1s to 86399s, and click "Apply", which means after ignition off, the device keep work until at settled time and shut off automatically
- ➤ Time from.to：While User choose Timer Mode, can settle the Start time
- ➤ And End time and click" Apply", Which means that Device will start at
- ➤ Start time and shut off at end time automatically.
- ➤ Noted: The Function only can be effective after restart.
- ➤ From：Settle Start time, the device will start at the settled time automatically.
- ➤ 2.To：Settle End time, the device will shut off at the settled time automatically.

HDD / SD (same process as HDD)
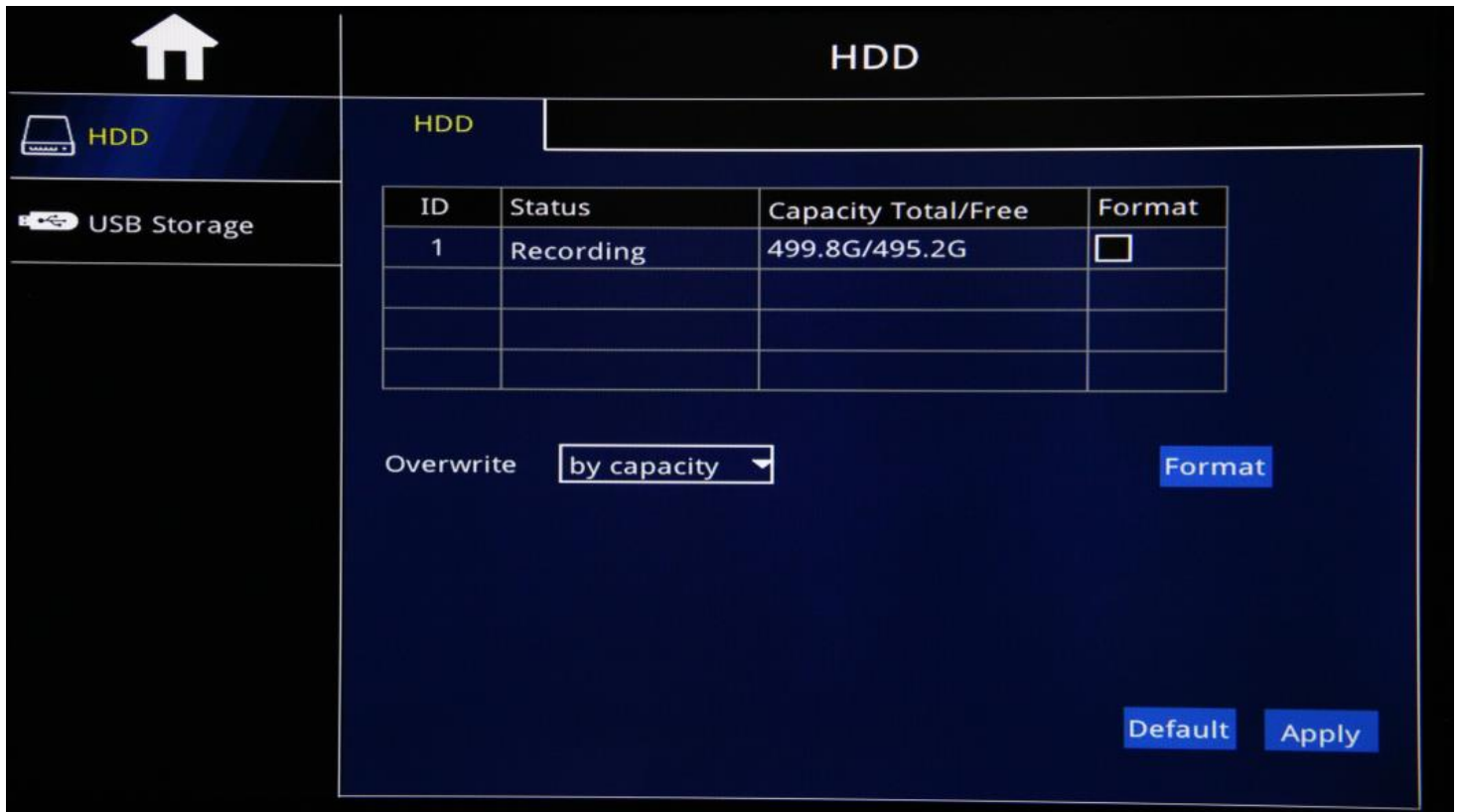
- ➢ HDD：Showing HDD status, Capacity etc info.
- ➢ Overwrite: "By Date"，"By Capacity" and "Never" Modes Optional
- ➢ Format：Check the relative HDD to click "Format" to Format HDD
- ➢ USB Storage: Connect U-Disk with USB Port to back up recorded video/Upgrade, support Hot Plugging/Plug out.
- ➢ Noted: Need Format for 1st time use.
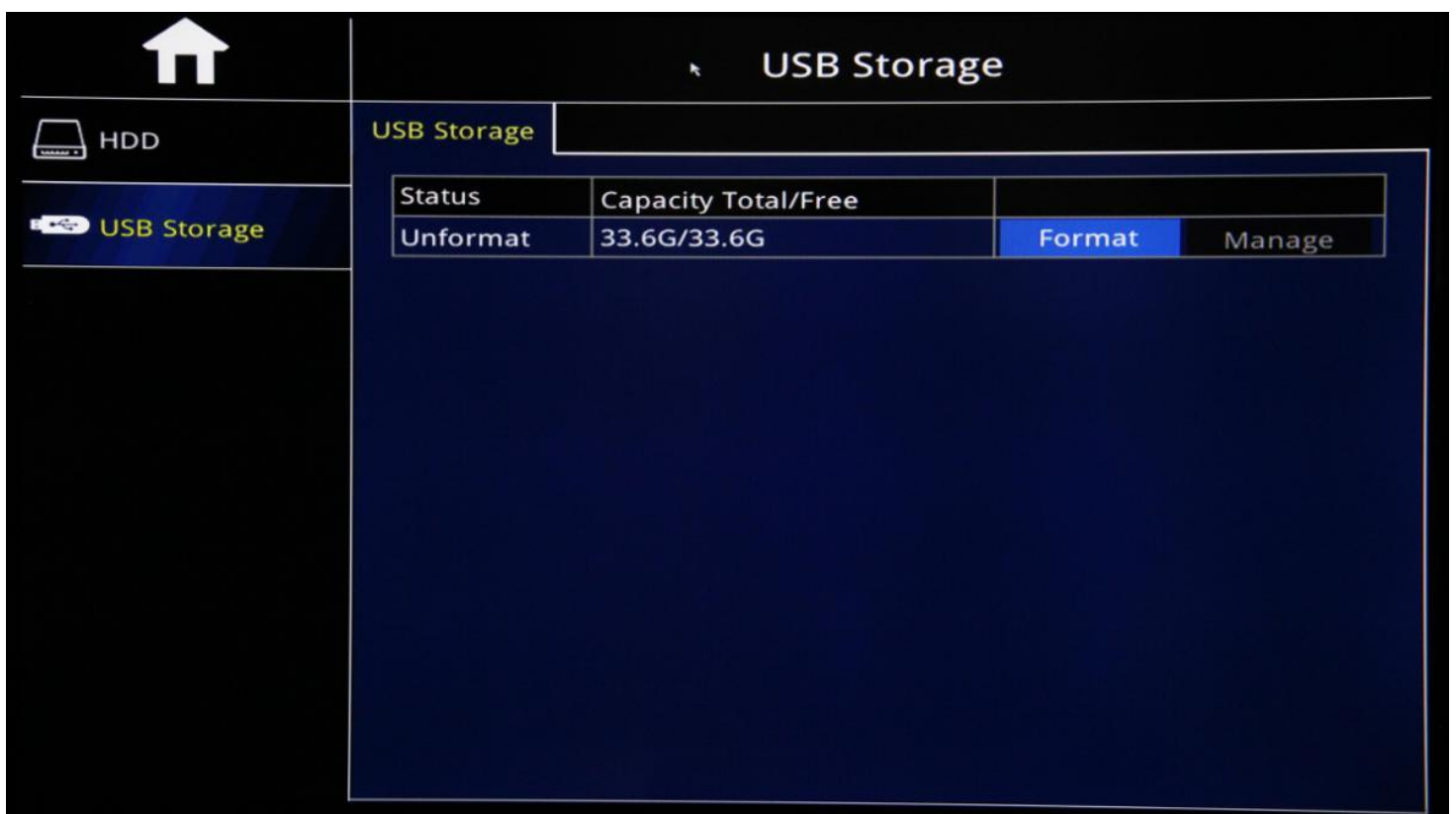
Information Menu: WILL NOT BE USING THIS TAB FOR THIS DEVICE


- ➢ Device Name：Check Device Name
- ➢ Device ID：Check Device ID
- ➢ Device Serial No.：Check factory Device Serial No.
- ➢ Firmware Version：Check Firmware Version
- ➢ MAC address：Check Device MAC address

Record Info

Based the Setup of Each Channel, including Resolution, Frame Rate and Quality to calculate how much date occupied per Hour of each channel, ie: data per hour.

Maintenance - Basic
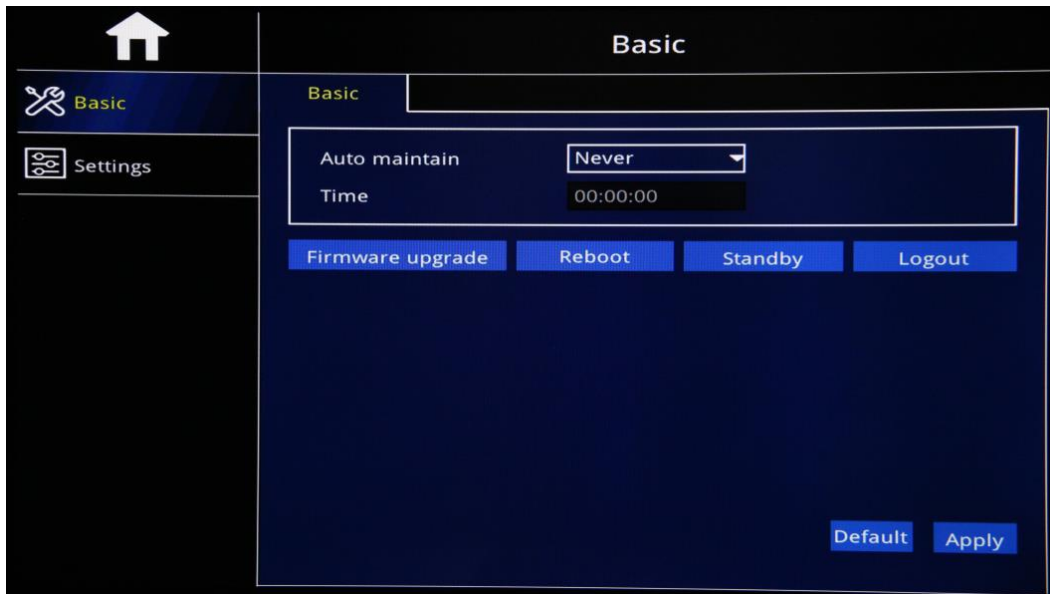
Auto Maintain
- To Settle Device Restart Maintain
- Never: Device never goes on Restart Maintain unless by manual
- Month: After choose "Month" Maintain, Will show a time Box to go on time setup, which means device will go on Restart maintain at settled time very Month
- Week: After choose "Week" Maintain, Will show a time Box to go on time setup, which means device will go on Restart maintain at settled time very Week
- Day: After choose "Day" Maintain, Will show a time Box to go on time setup, which means device will go on Restart maintain at settled time very Day
- 10.1.2 Firmware Upgrade
- To Create a Folder and Name "upgrade" in U-Disk， Copy upgrade file into the folder
- 2）Insert U-Disk into USB Port of Device, and Click "Firmware
- Upgrade". System will Scan U-Disk and start to upgrade. While
- Upgrading, Do not put out of U-Disk
- Noted：After set up, click" Apply - Reboot - Reboot the device - Standby - After clicking Standby, Device come into sleep mode. - Logout
Click" Logout" and "OK" to logout system, next time, need to input password to log in

Maintain
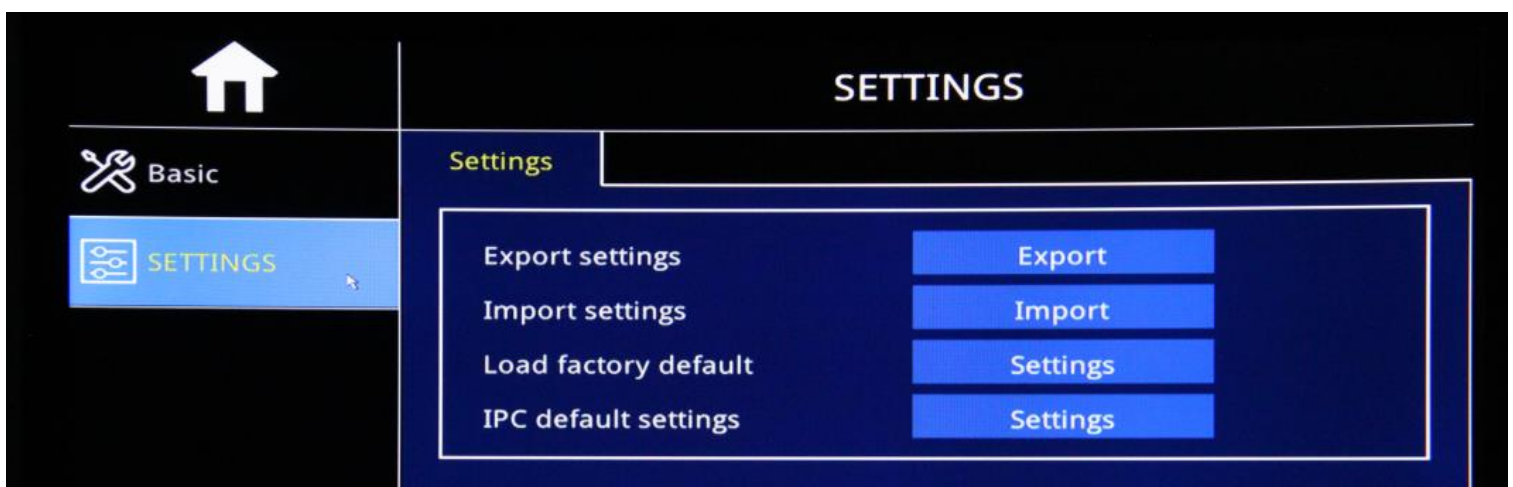
- **Export Setting：** Copy Device Setup into U-Disk to import the same setting into Other devices
- **Import Setting：** Import other device setting into the device via U-Disk.
- **Load Factory Default：** Load Factory Default of System Setup, Display setup, Maintain Setup, Alarm Setup, Network setup, Time Setup, Record Setup
  You can check them separately or ALL and click" Apply" to make it effective