

digital radio technology 2.4 GHz

# smart i\_control

Video Monitoring System

Art. No. 51092

User Manual



Figure shows monitor in quad setting  
which is only possible  
when using additional cameras



Android



iOS

### Important

Prior to using the device for the first time, carefully and completely read through all operating instructions. Keep these operating instructions in a safe place; it contains important hints for operating the device.

**Note:** Due to the permanent updates of product and software, these operating instructions and the user interface of the app will possibly deviate from each other. All instructions depend on the actual user interface.

### stabo is eco-friendly.

To help us save trees and reduce paper waste, you will find all operating instructions with care and safety instructions as well as warranty informations only online.

## Product description/ Intended use

The weatherproof color camera of the stabo smart i\_control wirelessly transmits video and audio signals of the monitored area to the monitor. Its digital technology is used to assure a transmission which is almost free from interferences and secure against eavesdropping thus protecting your privacy.

You can either keep the monitored area in permanent view via the monitor or have the camera images displayed only, the **Video Motion Detection** function detects movements. The area detection feature offers the possibility of restricting motion detection to predefined areas. This prevents triggering of an alarm in undefined areas.

Thanks to powerful infrared LEDs, image transmission is also possible with poor lighting conditions (in this case, the monitor image is shown in black and white).

Using the app *Kalay Cam* (to be obtained free of charge in your App Store or via Google Play), you can use your smartphone/tablet PC to view live images from your cameras and listen to surrounding sounds (provided that the monitor has an Internet connection).

The monitor is equipped with a HDD port. Thus, camera shots can be recorded using a commercially available hard disc up to 2 TB (not included in the scope of supply). A micro SD card slot for cards up to 32 GB is integrated in the device (card not included).

The stabo smart i\_control set can be extended: Up to 4 cameras can be connected (additional cameras can be obtained as option from specialist dealers).

Some of the menu items and functions described within these operating instructions refer to the usage of the set with several cameras (e.g. quad function)!



## Safety notes and warnings

**Observe the legal provisions on video surveillance!** Make sure that neither neighboring private property nor adjacent public areas are covered! For commercial areas, it is essential to observe the corresponding information duty!

**Do not expose the system to the weather in the open!** The camera of the stabo smart i\_control is weatherproof (protection type IP 66) and suitable for mounting in outdoor areas. However, the camera's power supply unit has to be protected against humidity and moisture!

Monitor and power supply unit are exclusively designed for indoor operation!

Never use the monitor in rooms which are very humid or exposed to dust (e.g. bathroom and/or joinery). Install the monitor such that tilting and falling is prevented, protect the device against strong vibrations.

**Do not use during thunderstorms!** Do not use the devices during thunderstorms! Disconnect the devices from the mains when a thunderstorm approaches and/or when you are absent.

**The devices must be kept out of the reach of children!** Prevent children from playing with the devices, accessories or the packing material!

**Do not use in hospitals and/or nursing facilities!** Your stabo smart i\_control produces radio waves which might affect the proper functioning of the hospital equipment. If necessary, contact the responsible personnel to clarify whether safe commissioning is possible.

**Do not open the devices or make any modifications to them!** Never open parts of the housing and do not make any modification on the devices. Otherwise, no further guarantee claim can be accepted and the devices could lose their approval for use!

**If the housing is damaged, disconnect the power plug!** Immediately disconnect the device from the mains, if damage on the housing is found. Ensure that possibly required repairs are performed by a qualified person only

## Scope of delivery

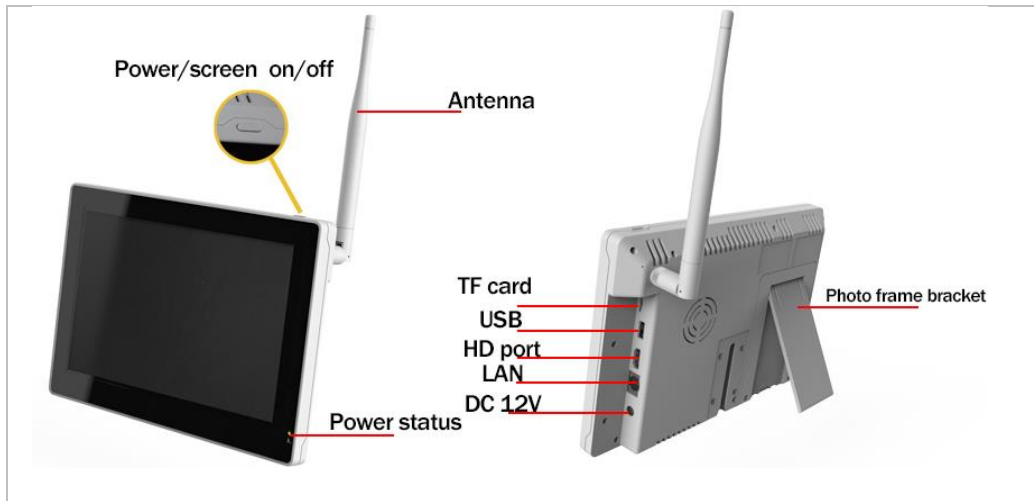
22,9 cm (9") color LCD Touchscreen monitor with photo frame bracket  
WLAN wireless color camera (IP 66) with mounting bracket (ceiling/wall fastening)  
power supply for monitor 12 V/2 A, power supply for camera 5 V/2 A  
RJ45 network cable  
quickstart user manual DE/EN

Please check the contents of the package for completeness. Prior to using the device, examine it with respect to any external damage. In case of an external damage, do not put the product into operation, but contact your specialist dealer immediately.

|   |    |
|---|----|
| <b>1. PRODUCTS OVERVIEW</b> .....                     | 3  |
| <b>1.1 9 inch Touch Screen NVR</b> .....              | 3  |
| <b>1.2 Bracket ( Optional )</b> .....                 | 3  |
| <b>1.3 Camera</b> .....                               | 4  |
| <b>2. HARD DISK INSTALLATION</b> .....                | 4  |
| <b>3. SPECIFICATION</b> .....                         | 4  |
| <b>4. QUICK SETUP</b> .....                           | 6  |
| <b>4.1 Connect the 9 inch NVR</b> .....               | 6  |
| <b>4.2 Connect the Camera</b> .....                   | 7  |
| <b>4.3 Live View Video Monitoring</b> .....           | 7  |
| 4.3.1 On-Screen Display .....                         | 7  |
| <b>5. MENU OPERATION</b> .....                        | 10 |
| <b>5.1 Main Menu</b> .....                            | 10 |
| <b>5.2 Camera Setting</b> .....                       | 10 |
| 5.2.1 Pairing .....                                   | 11 |
| 5.2.2 Activation .....                                | 12 |
| 5.2.3 Brightness.....                                 | 13 |
| 5.2.4 Volume .....                                    | 13 |
| 5.2.5 MD Sensitivity(Motion Detect Sensitivity) ..... | 13 |
| <b>5.3 Record Setting</b> .....                       | 14 |
| 5.3.1 Record Time .....                               | 15 |
| 5.3.2 Date Stamp.....                                 | 15 |
| 5.3.3 Loop Recording .....                            | 15 |
| 5.3.4 HDD Format.....                                 | 16 |
| <b>5.4 Record Trigger Setting</b> .....               | 16 |
| <b>5.5 System Setting</b> .....                       | 17 |
| 5.5.1 Time Setup .....                                | 18 |
| 5.5.2 Power Saving (Turn OFF video Out put).....      | 19 |
| 5.5.3 Default Setting .....                           | 19 |
| 5.5.4 Language Setting.....                           | 19 |
| 5.5.5 Set password .....                              | 20 |
| 5.5.6 Time Zone.....                                  | 21 |
| <b>5.6 Event List</b> .....                           | 21 |
| 5.6.1 Browse video files .....                        | 21 |
| 5.6.2 Export video file to TF Card .....              | 24 |
| 5.6.3 Export video file to TF Card .....              | 24 |
| 5.6.4 Format TF card .....                            | 24 |
| <b>5.7 HDD Capacity</b> .....                         | 24 |
| <b>5.8 Network Function</b> .....                     | 25 |
| 5.8.1 Network Status.....                             | 26 |
| 5.8.2 Firmware Update .....                           | 26 |
| <b>6. MOBILE APPS “Kalay Cam” by TUTK</b> .....       | 27 |
| <b>6.1 Quick NVR Setup using Kalay Cam</b> .....      | 28 |
| <b>6.2 More functions in CAMERA mode</b> .....        | 30 |
| <b>6.3 LIVE mode setting</b> .....                    | 32 |

# 1. PRODUCTS OVERVIEW

## 1.1 9 inch Touch Screen NVR



**Note:**

There is only one button on the top of the monitor, which can be used as POWER key and SCREEN key. Press 1 second, the screen will turn on/off. Keep pressing 3 seconds, the power will turn on/off.

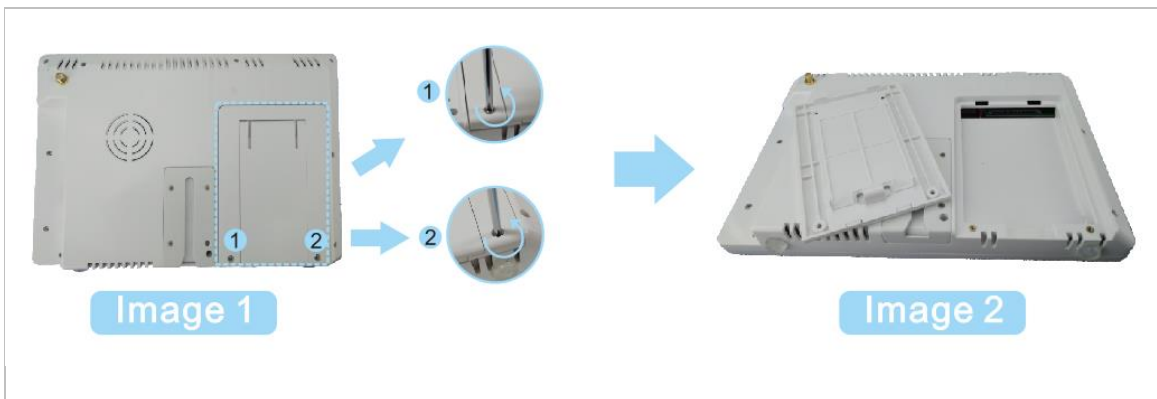
## 1.2 Bracket ( Optional )



### 1.3 Camera



## 2. HARD DISK INSTALLATION



\* Unscrew the screw 1 2



Install the 2.5 inch HDD, obliquely inserted it into the NVR and tighten the Screws.

**Note:**

If you do not install the 2.5 inch HDD, Recording will be unworkable

## 3. SPECIFICATION

## 2.4G Wireless NVR

| Items               | Parameters                 | Values  |
|---------------------|----------------------------|---|
| LCD Panel           | Screen type                | 9" TFT-LCD  |
|                     | Display Area               | 196.61x114.15mm   |
|                     | Resolution                 | 1024(H)xRGBx600(V)  |
| System              | Main processor             | ARM9EJ-S  |
|                     | Operating system           | RTOS  |
| Video               | Video compression          | H.264   |
|                     | Video input mode(IP)       | 4*720P  |
|                     | Video Outputs              | HDMI(HD-720P)   |
|                     | Display Resolution         | Max. HD-720P  |
| Audio               | Audio compression          | Audio32   |
|                     | Intercom                   | Option  |
| Recording           | Recording Modes            | Manual, Scheduled, Motion Trigger                                 |
|                     | Recording Resolution       | 720p HD (4 Channels)  |
|                     | Recording Frame Rate       | Max 25fps / 30fps @ 720p for each channel                         |
|                     | Loop Recording             | Yes   |
|                     | Hard Drive                 | Built-in 2.5-inch SATA hard drive slot (Max. support 2TB)         |
| Connections         | Network Apps               | Kalay Cam (iOS & Android)   |
|                     |                            |   |
|                     | Network Access Mode        | Local, P2P  |
|                     | Event Push to Smartphone   | Yes   |
| External Interface  | Network Interface          | RJ45 LAN Port x 1   |
|                     | HDMI Output                | HDMI Port x 1 (1.3)   |
|                     | AV Output                  | N/A   |
|                     | TF Card video files export | Max.32GB(FAT32),video file export (AVI format) / firmware upgrade |
|                     | USB Port                   | Yes (2.0)   |
| External Controller | Panel Key                  | N/A   |
|                     | IR Remote                  | N/A   |
|                     | Touch Key                  | N/A   |
|                     | Touch Screen               | Yes   |
| General             | Power Supply               | DC12V/2A  |
|                     | Working Environment        | 0~+55℃ / 10~90%RH / 86~106kpa                                     |
|                     | Dimension                  | 243.8x163.5x30.3mm  |
|                     | Weight                     | 0.68kg  |

## 2.4G Wireless Camera

| Items           | Parameters   | Values                 |
|-----------------|--------------|------------------------|
| Sensor and lens | Image Sensor | 1/4" OV9712 1Megapixel |

|              |                       |                               |
|--------------|-----------------------|-------------------------------|
|              |                       | progressive scan<br>CMOS      |
|              | Focal Length          | 3.6mm                         |
| Video        | Video Quality         | 720p                          |
|              | Viewing Angle         | 70°(Diagonal)                 |
| Night Vision | IR LED                | 850nm                         |
|              | Night Vision Distance | 20-30 meters                  |
|              | IR Cut Filter         | Yes                           |
| General      | Power Supply          | DC 5V/2A                      |
|              | Working Environment   | -10~+60℃ /Less than<br>95% RH |
|              | waterproof            | IP66                          |
|              | Dimension             | Ø67.5mm×164mm                 |
|              | Weight                | 0.36kg                        |

## 4. QUICK SETUP

### 4.1 Connect the 9 inch NVR



- a) Install the antenna to LCD NVR
- b) Connect LCD NVR with Router by RJ45 cable
- c) Plug in the power adapter of LCD NVR

#### Note:

- a) Before using the equipment, please confirm the Router is open DHCP service (Generally, the Router is open DHCP service automatically) .
- b) Camera must be installed within the valid transmission distance to ensure the LCD NVR can receive the stable and clear image from the cameras.

## 4.2 Connect the Camera



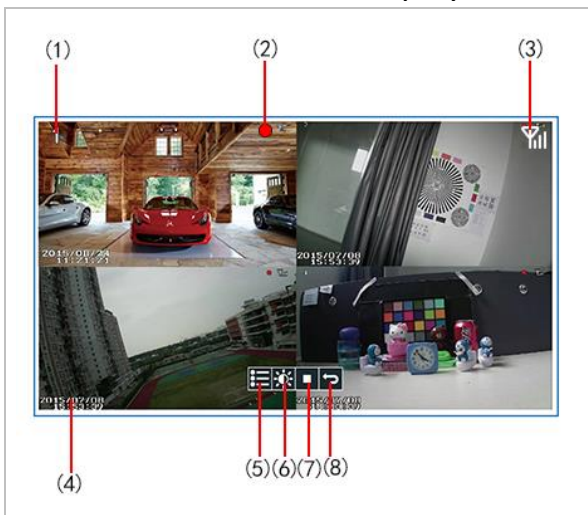
- a) Install the antenna to cameras
- b) Connect all cameras to AC/DC adapter, plug the AD/DC adapter into wall AC outlet.  
Signal LED in front of the camera indicates signal condition.
  - 1) BLUE steady ON – Signal is high
  - 2) BLUE flashing - Signal is medium
  - 3) RED steady ON - Signal is low

**Note:**

All LEDs will be turned OFF after 1 minute.

## 4.3 Live View Video Monitoring

### 4.3.1 On-Screen Display



- (1) Camera channel No#
- (2) Recording in progress
- (3) Wireless signal
- (4) Time / Date Stamp
- (5) Main menu
- (6) Brightness
- (7) Record (# No hard drive, can not record)
- (8) Return

#### (A) 1-Channel ZOOM In ↔ 4-Channel Preview

\*In Live View mode / Record mode / Video file playback mode, point & click LEFT mouse button to zoom in single channel. In zoom-in mode, LEFT-click mouse again to restore 4-channel view.

\*In front panel keypad and IR remote controller, press [CH] button to display single channel & 4T mode in sequence.

4T mode → CH1 → CH2 → CH3 → CH4 → 4T mode → CH1 .....



**Note:**

Zoom-in function is not available when playback file during recording.



**(B) Start/Stop Recording**


In live view mode, Press [ENTER] button or use mouse toolbar to start video recording. A RED dot Appears in top right-hand corner of each camera channel. Press the button again to stop video recording







**Note:**

If the NVR does not receive video signal from ALL 4 cameras due to certain reasons (e.g. power lost, signal too weak, ...etc), the NVR will reboot every 10 minutes trying to restore video connection from the cameras.

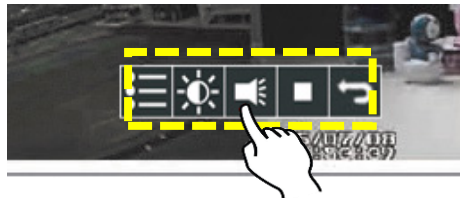
When the NVR is recording video, user can still use the following MENU functions:

| Menu Icon   | Description           | Functions Accessible   |
|---|-----------------------|--|
|  | <b>Camera Setting</b> | <ul style="list-style-type: none"><li>• Activation – Camera ON/OFF only</li><li>• Change brightness</li><li>• Change motion detect sensitivity</li></ul> |


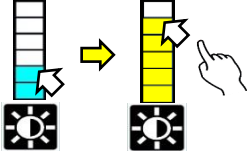




|   |  |   |
|---|--|---|
|  | <p align="center"><b>Record Setting</b></p>        | <ul style="list-style-type: none"> <li>• Change record file duration (1 / 2 / 5 minutes)</li> <li>• Set date stamp ON/OFF</li> <li>• Set HDD Loop recording ON/OFF</li> </ul> |
|  | <p align="center"><b>Event Trigger Setting</b></p> | <ul style="list-style-type: none"> <li>• Edit trigger events</li> </ul>   |
|  | <p align="center"><b>System Setting</b></p>        | <ul style="list-style-type: none"> <li>• Change power saving time (No saving, 2 / 5 / 10 minutes)</li> </ul>  |
|  | <p align="center"><b>Event List</b></p>            | <ul style="list-style-type: none"> <li>• Playback video files</li> <li>• Delete video files</li> </ul>  |

**Live View Mode**

In Live View mode, move near bottom-center of the screen activates the Live View Quick Toolbar. 5 functions available:



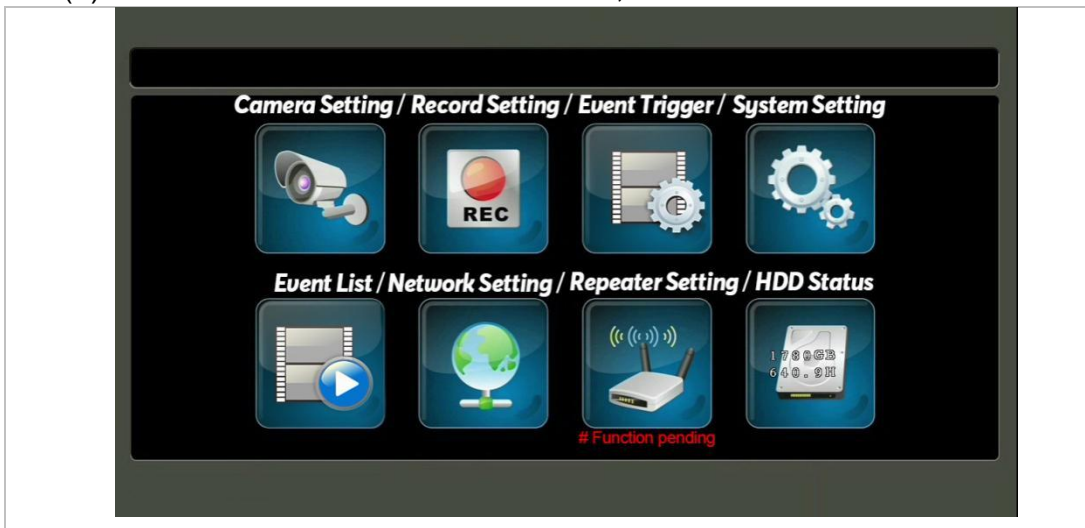
|   |   |
|---|---|
|  | <ul style="list-style-type: none"> <li>• Return the main menu<br/>[Left Click] the icon return to the main menu.</li> </ul>  |
|---|---|

|   |  |
|---|--|
|  | <ul style="list-style-type: none"> <li>• <b>Brightness</b><br/>the icon once to select to view current brightness level bar. Move the mouse cursor up/down the bar to adjust brightness and [Left Click] again to confirm changes</li> </ul>              |
|  | <ul style="list-style-type: none"> <li>• <b>Start/Stop Recording</b><br/>[Left Click] once to toggle Recording Mode on or off.</li> </ul>  Click to start  Click to stop |
|  | <ul style="list-style-type: none"> <li>• <b>Return</b></li> </ul>  |

## 5. MENU OPERATION

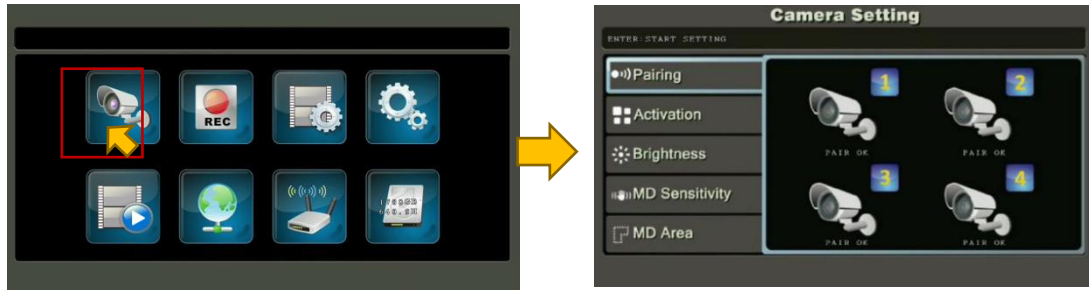
### 5.1 Main Menu

- Use [UP / DOWN / LEFT / RIGHT] buttons to select functions, then press [ENTER] button;
- Move mouse cursor to function icon, left-click mouse button to enter menu.



### 5.2 Camera Setting

- Pairing
- Activation
- Brightness
- Volume
- MD Sensitivity
- MD Area

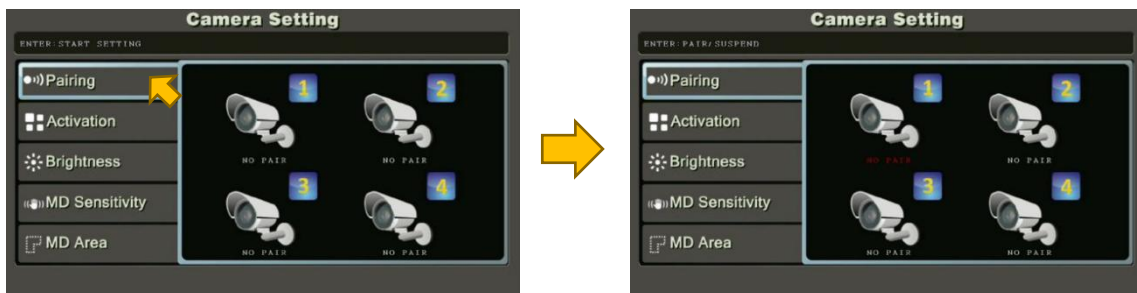


## 5.2.1 Pairing

Register camera to NVR to transmit Live Video.

Label under camera icons:

- **NO PAIR** – This camera channel is available for pairing
- **PAIR OK** – This camera channel is registered with a camera
- **PAIRING** – Pairing in progress
- **TIME OUT** – Pairing failed. Please check camera and try again



Pairing the camera:

1. Press [ENTER] button to start. By default, camera channel 1 is selected (RED colour).
2. Use UP / DOWN / LEFT / RIGHT] key to select a camera channel
3. Select **NO PAIR** channel to add a new camera; OR
4. Select **PAIR OK** channel to replace current camera
5. Make sure the camera is connected to power source – Power LED turns RED, then BLUE signal LED ON or Flashing. Press [ENTER] key to start pairing. Label changes to **PAIRING**
6. Now press the camera “Pairing” button (See section 1, camera image) to pair with the NVR
7. When pairing succeeds, label changes to **PAIR OK**
8. If pairing fails, label changes to **TIME OUT**. Then user has to check again the camera and the NVR condition.

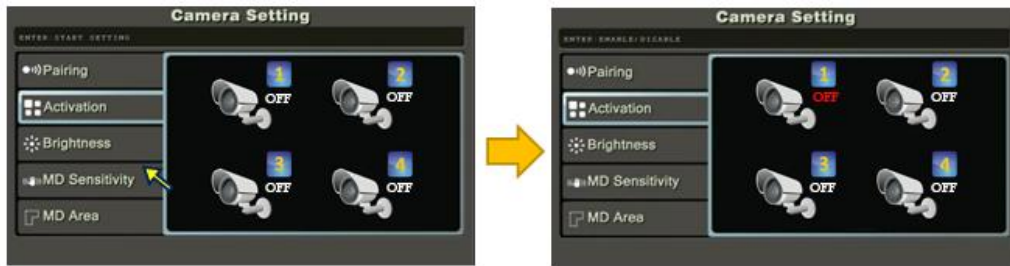


**Note:**

- During first pairing, the camera registered to channel 1 will be camera #1, to channel 2 will be camera #2... and so on
- If camera is paired to replace existing camera, the existing camera will become non-paired and lose pairing information
- If existing camera is paired to another channel, the original channel will become NO PAIR

**5.2.2 Activation**

- Activate/disable individual camera
1. Press [ENTER] button to start.



Click select



## 2. (a) Activate/disable camera

Use [LEFT / RIGHT] button to select channel. Press [ENTER] button to toggles between <ON> and <OFF>. Channels disabled will NOT video to NVR.

## 5.2.3 Brightness

Adjusts individual camera Live View screen brightness.

1. Press [ENTER] button to start. Camera channel 1 is selected.
2. Use [UP / DOWN / LEFT / RIGHT] buttons to select target camera with level bar turns RED
3. Press [ENTER] button to change level from 1 to 5. Default level is 3.



Press [ENTER] button to change

## 5.2.4 Volume

Adjusts individual camera audio level.

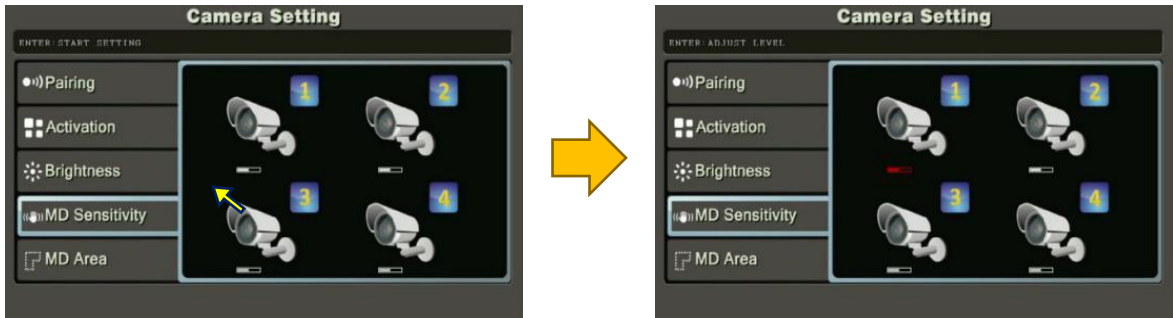
1. Press [ENTER] button to start. Camera channel 1 is selected
2. Use [UP / DOWN / LEFT / RIGHT] buttons to select target camera with level bar turns RED
3. Press [ENTER] button to change level from 0 to 5. Default level is 3.

## 5.2.5 MD Sensitivity(Motion Detect Sensitivity)

Adjusts individual camera's Motion Detect Sensitivity level.

1. Press [ENTER] button to start. Camera channel 1 is selected

2. Use [UP / DOWN / LEFT / RIGHT] buttons to select target camera with level bar turns RED
3. Press [ENTER] button to change level from 1 to 5. Default level is 3.



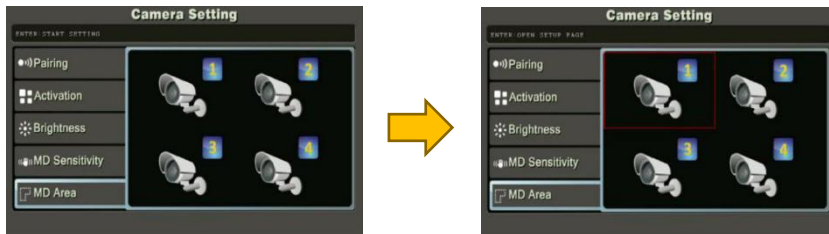
Press [ENTER] button to change value

### 5.2.6 MD Area (Motion Detect Area)

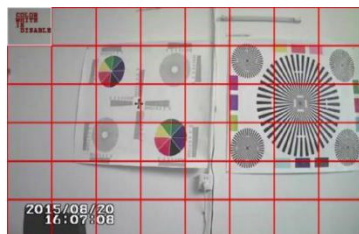
Select motion detection region. By default, the sensor will evaluate full screen pixels to calculate potential movement.

To change motion detection area:

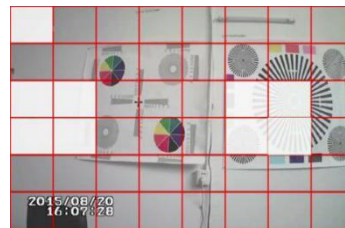
1. In "Camera Setting" menu, select "MD Area" and press [ENTER] button
2. Use [UP / DOWN / LEFT / RIGHT] buttons to select target camera with RED square frame
3. Use [UP / DOWN / LEFT / RIGHT] buttons to select region to be disabled.
4. Selected area will change to WHITE square. All WHITE areas are IGNORED during motion detection.
5. Press [MENU] to exit



Select target camera



Default – FULL screen check for

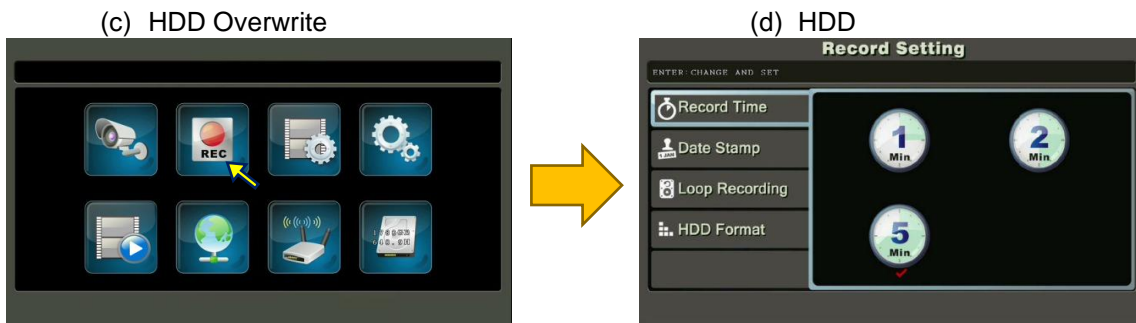


Disable motion detect by highlighting area to WHITE

## 5.3 Record Setting

(a) Record Time

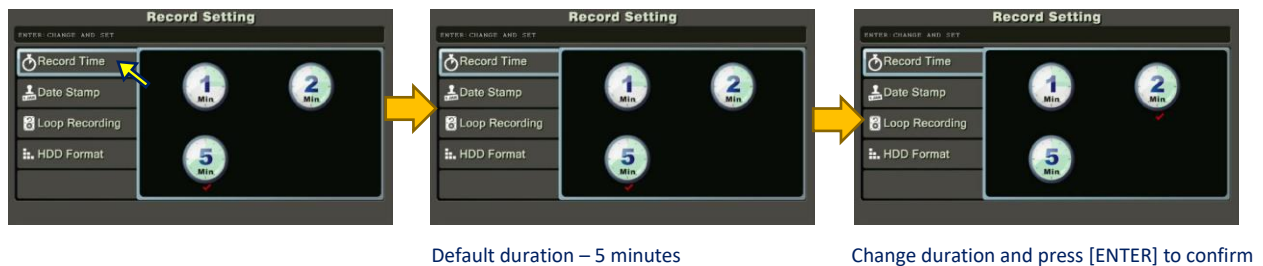
(b) Date Stamp



### 5.3.1 Record Time

Recorded video is sliced into smaller video files for better storage management. Default value is 5 Minutes for each file.

1. Press [ENTER] button to start
2. Use [UP / DOWN / LEFT / RIGHT] button to select file length
3. Press [ENTER] button to confirm or [MENU] button to exit



### 5.3.2 Date Stamp

Enable/disable “Date/Time” stamp on Live View screen. Default is “ON”, date and time are shown at the lower left corner of each camera channel.

To change the setting:

1. Press [ENTER] button to go into “Date Stamp” menu. Default value in “ON” marked with RED tick under the ON label
2. Use [LEFT / RIGHT] button to select turn “ON” or “OFF” date stamp in Live View, press [ENTER] again to confirm changes
3. Press [MENU] to exit



### 5.3.3 Loop Recording

Set to enable/disable HDD video loop recording. When the internal hard drive is full during video recording, the NVR will delete oldest files to release HDD space.

1. Press [ENTER] button to go into “Loop Recording” menu. Default value in “ON” marked with RED tick under the ON label



2. Use [LEFT / RIGHT] button to select turn “ON” or “OFF” loop recording, press [ENTER] again to confirm changes
3. Press [MENU] to exit



Default status – Loop recording ON



Select [OFF] to disable loop recording, press [ENTER] to confirm

### 5.3.4 HDD Format

This function formats the internal hard disk drive.

- (a) Press [ENTER] button to go into “HDD Format” menu
- (b) Select “Confirm”, press [ENTER] button to start formatting the hard disk drive.

Note:

- (1) **MUST format a new installed HDD in the NVR before using it to record video**
- (2) **MUST use a 7200rpm HDD with at least 32MB internal cache**

**CAUTION:** All data in the hard disk drive will be erased and cannot be recovered.



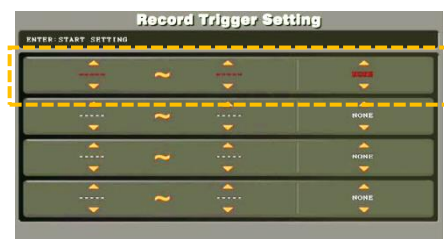
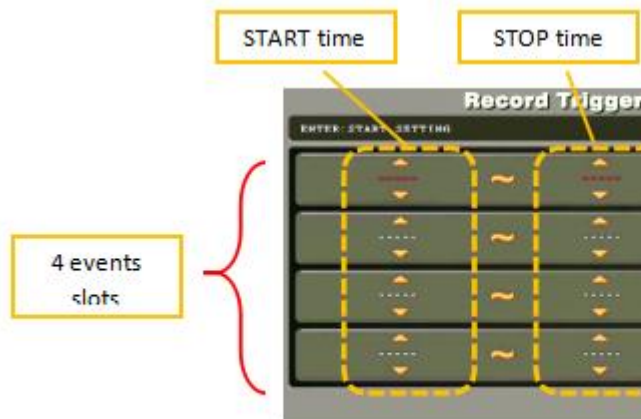
Select <Confirm> and press [ENTER] to format the HDD

### 5.4 Record Trigger Setting

User can set 2 different types of recording trigger. Triggers are set per daily basis.

- SCHEDULE
  - Record video according to preset time slot
- MOTION
  - During the preset time slot, start record video ONLY when motion is detected. Record time is set in “RECORD TIME” menu with 1, 2 or 5 minutes

There are 4 trigger event slots. User simply set “START time”, “END time” and “TRIGGER mode” step by step to activate event trigger video recording.



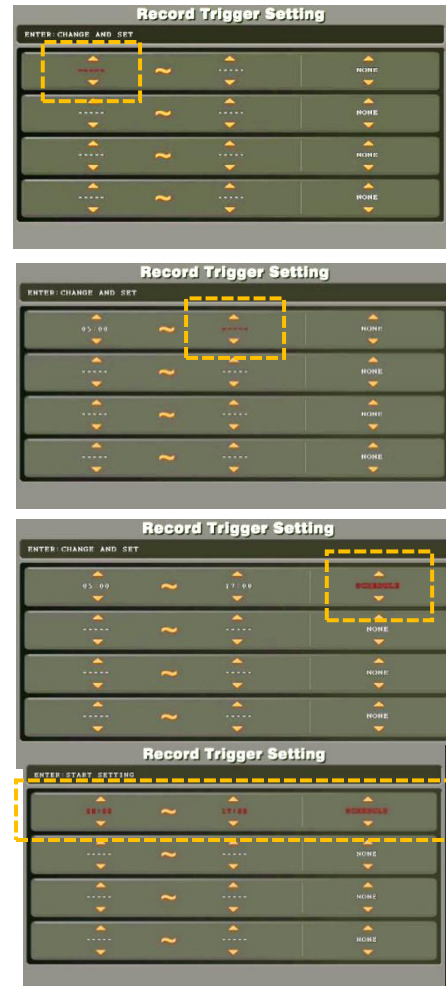
1. By default, the first (top) event slot is selected. All 3 columns of the event slot in RED.

2. Press [ENTER] to start setting, first column <START time> is highlighted in RED. Use [UP / DOWN] button to adjust record start time in one-hour step. Use [LEFT / RIGHT] to move between columns. For example, move right to <STOP time>

3. Use [UP / DOWN] button to adjust record stop time in one-hour step. Move RIGHT to <TRIGGER mode>

4. Use [UP / DOWN] button to select trigger method – SCHEDULE or MOTION. Or select NONE to disable recording in preset period.

5. After setting all 3 columns, press [ENTER] to confirm settings.



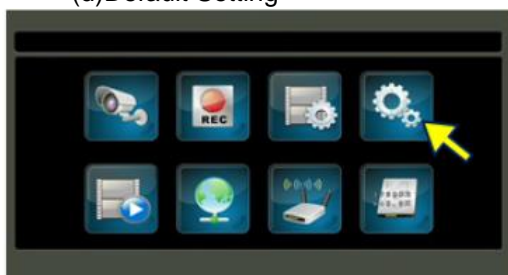
### **DELETE preset trigger**

Use [UP / DOWN] button to select event slot, then press [LEFT] button followed by [ENTER] button to confirm deletion.

## **5.5 System Setting**

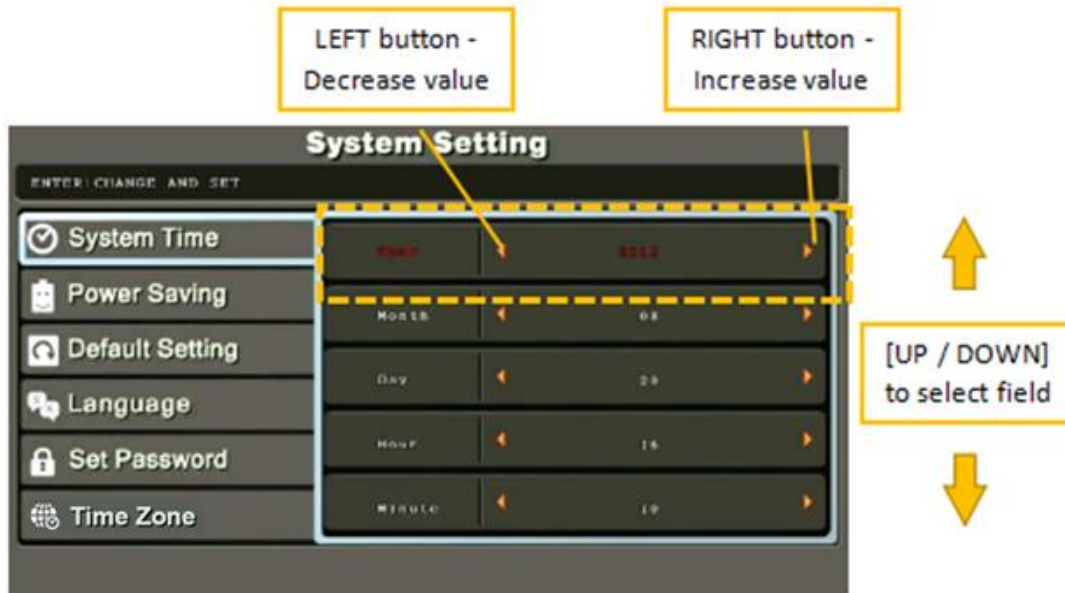
- (a) Time Setup
- (c) Power Saving
- (d) Default Setting

- (e) Language Setting
- (f) Set Password




### 5.5.1 Time Setup

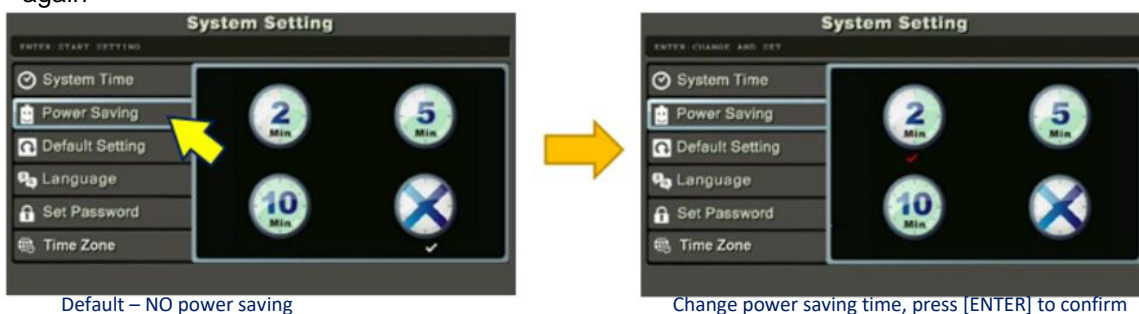
1. Press [ENTER] button entering "Time Setup" menu
2. Use [LEFT / RIGHT] button to adjust value, and [UP /down] button to select "Year" "Month", "Day", "Hour", "Minute"
3. Press [ENTER] to confirm change and exit



### 5.5.2 Power Saving (Turn OFF video Out put)

1. Press [ENTER] button entering "Power Saving" menu. Default is NO POWER SAVING 
2. Use [UP / DOWN / LEFT / RIGHT] button to select screen off time
3. Press [ENTER] button to confirm.

When video signal is disabled, user can press any key to enable video output again

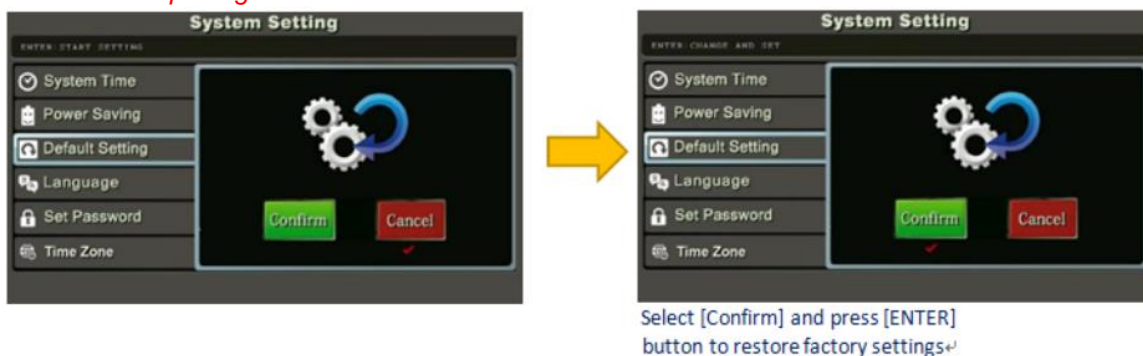


### 5.5.3 Default Setting

This option restores factory setting.

1. Press [ENTER] button start setting. Default value is <CANCEL>
2. Use [LEFT / RIGHT] to select <Confirm>
3. Press [ENTER] button to confirm factory setting restore, or [MENU] button to exit.

**CAUTION:** All camera will become NOT PAIRED after restoring default settings, user must redo pairing to receive video transmission



### 5.5.4 Language Setting

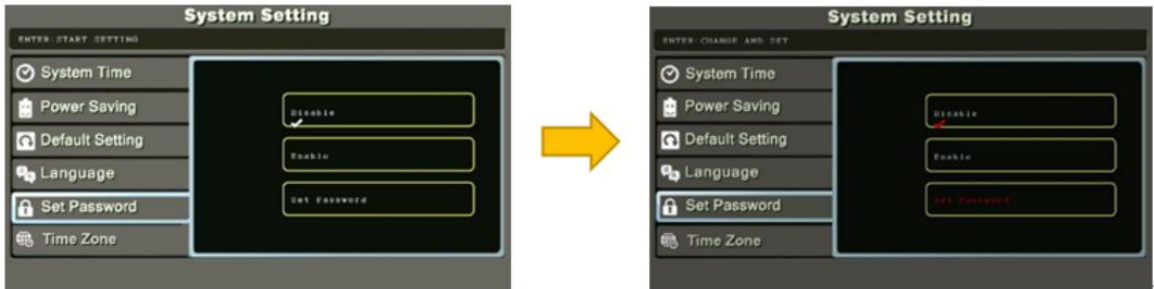
Change the system language. Current demo NVR supports English, Dutch and German. Other language pack can be added as option.



1. Press [ENTER] button to start setting
2. Use [LEFT / RIGHT] button to select target language
3. Press [ENTER] button to confirm change and [MENU] to exit

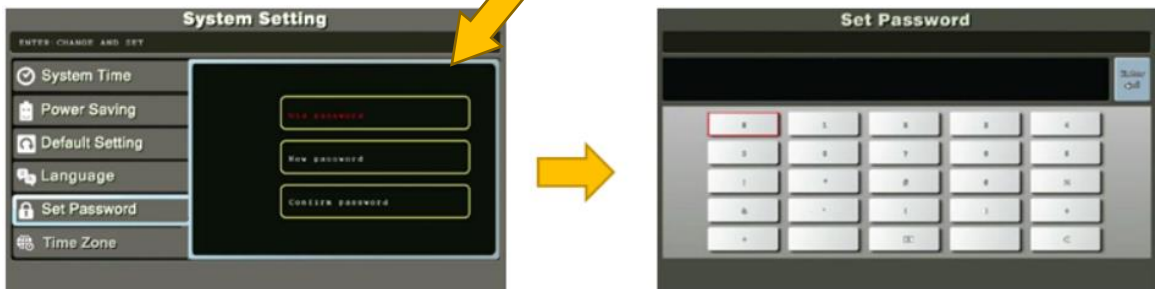
### 5.5.5 Set password

Create/change password to control access to Main Menu. Default password is "00000000"



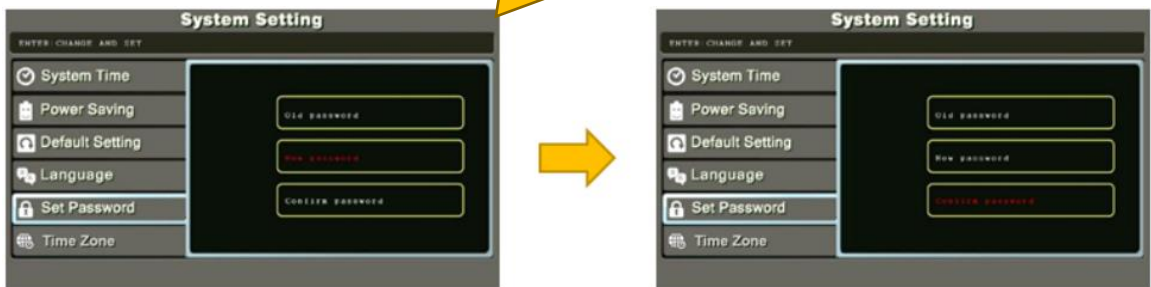
(1) Press [ENTER] button to start. By default, PASSWORD function is disabled

(2) Select "Set Password" and press [ENTER] button.



(3) Select "Old password" and press [ENTER] button.

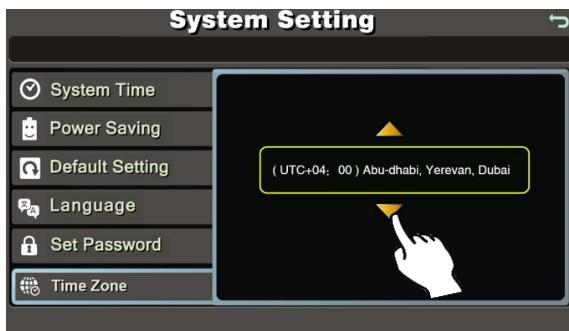
(4) Enter previous password. For first time setting, the default password is "00000000", then move the selection cursor to "ENTER" icon on the right side, press [ENTER] button to confirm.



(5) Next enter the NEW password

(6) Finally, enter the NEW password again to confirm changes.

## 5.5.6 Time Zone



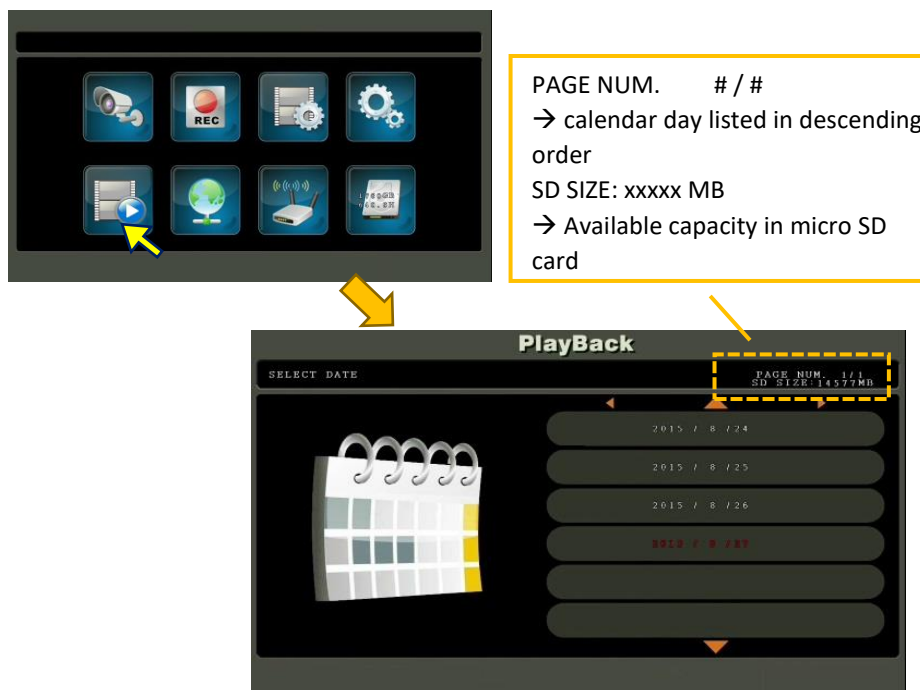
Go into the time zone interface, click the triangle button to choose local time zone

## 5.6 Event List

User can manage stored video file with this function.

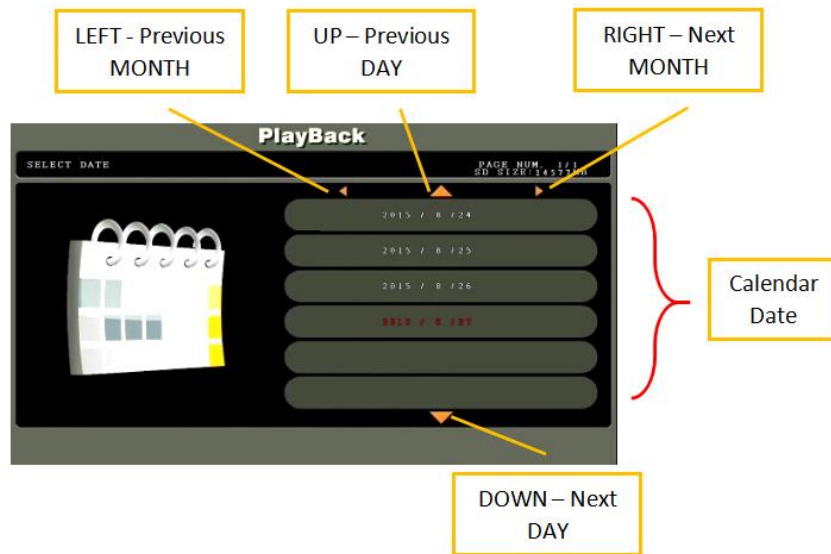
- (1) Browse video files
- (2) Playback video
- (3) Export files to SD card
- (4) Delete video files

*Note: During recording, user may not see the current recording file in the event list*

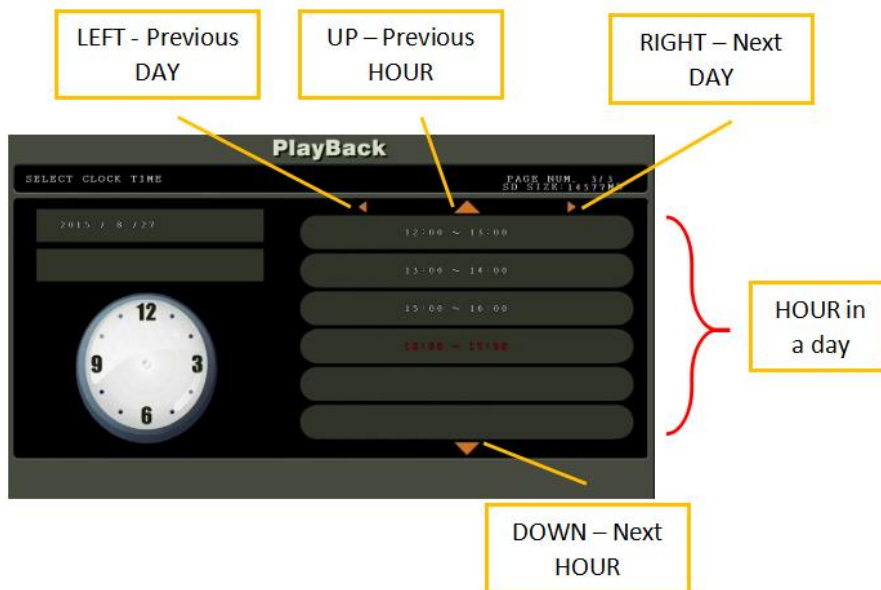


### 5.6.1 Browse video files

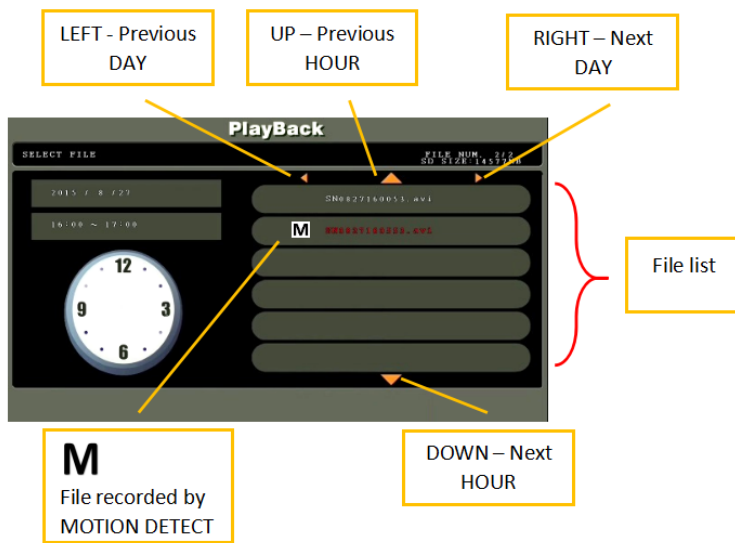
1. Press [ENTER] button to start browsing
  - a. Use [LEFT / RIGHT] button to select date
  - b. Use [UP / DOWN] button to select day. Highlighted in RED.
  - c. After selection, press [ENTER] to time slot list; OR [MENU] to exit



2. Next menu is hourly time slot list
  - a. Use [LEFT / RIGHT] button to select day
  - b. Use [UP / DOWN] button to select hour in a day. Highlighted in RED.
  - c. After selection, press [ENTER] to file list; OR [MENU] to exit



3. Next menu is video file list
  - d. Use [LEFT / RIGHT] button to select hour in a day
  - e. Use [UP / DOWN] button to select file. Highlighted in RED.
  - f. After selection, press [ENTER] to start playback; OR [MENU] to exit



Video file name format: **SNMMDDhhmmss.avi**

- SN – file name header
- MM – Month (1 to 12, e.g. 04 = April)
- DD – Day (1 to 31)
- hh – Hour in a day (00 to 23)
- mm – Minutes (00 to 59)
- ss – Seconds (00 to 59)
- .avi – file extension





Mouse Toolbar

Playback Time and progress bar

Player status  
▶ Playback  
⏸ Pause



## 5.6.2 Delete Video file



1. Browse the file list
2. USE MOUSE TOOLBAR
  - Move the mouse pointer to the right of the filename, mouse toolbar appears
  - Left-mouse click the [DELETE] icon  in toolbar on the right side of the filename.
  - Click  to confirm delete file.

*Note: All files deleted cannot be recovered.*

## 5.6.3 Export video file to TF Card

1. Browse the event file list, select a file to export. Selected item is highlighted in RED

**SN0415204512.avi**



2. USE MOUSE TOOLBAR
  - Move the mouse pointer to the right of the filename, mouse toolbar appears
  - Left-mouse click the [SD VIDEO EXPORT] icon  in Mouse Toolbar on the right side of the filename.
  - Click  to start file export

*Note:*

*\* Video files are exported in AVI format in 4 separate files corresponding to 4 camera channel. File suffix "~1", "~2", "~3", "~4" are added to the files indicating camera channel. e.g. SN1231090000~1.avi → December 31, 09:00:00am, Camera #1*

*\* Support maximum 32GB micro-SD card (FAT32 format)*

## 5.6.4 Format TF card

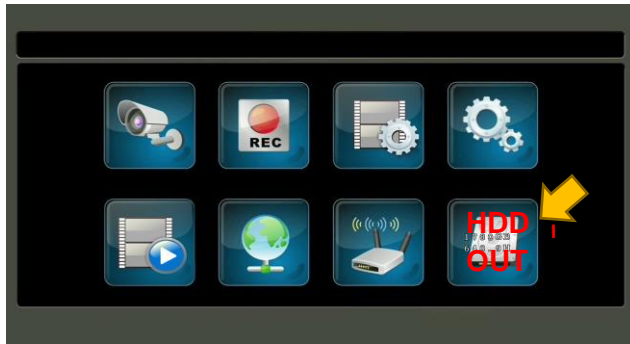
1. Go to [EVENT LIST] menu
2. USE MOUSE TOOLBAR
  - Move the mouse pointer to the right of the filename, mouse toolbar appears Left-mouse click the [TF FORMAT] icon  in toolbar on the right side of the filename.
  - Click  to confirm SD card format

*Note: All data in micro SD card will be deleted and cannot be recovered.*

## 5.7 HDD Capacity

The status of internal hard disk is displayed in the icon

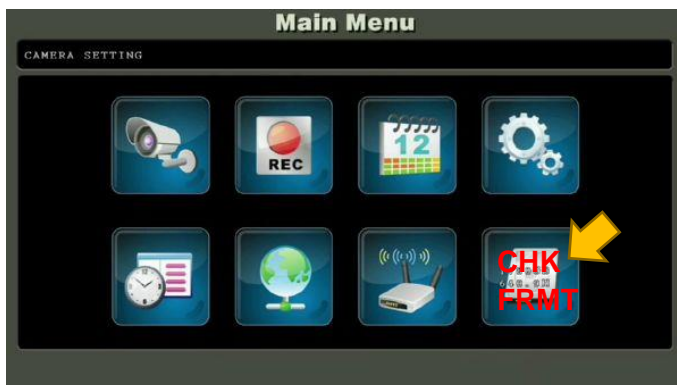
1. When NO hard disk drive is detected, "HDD OUT" is displayed



2. When hard disk drive is detected and file system valid, it shows:
- Remaining storage capacity
  - Estimated remaining recording time
- Note: Recording time depends on various factors, the remaining time may differ during actual operations*



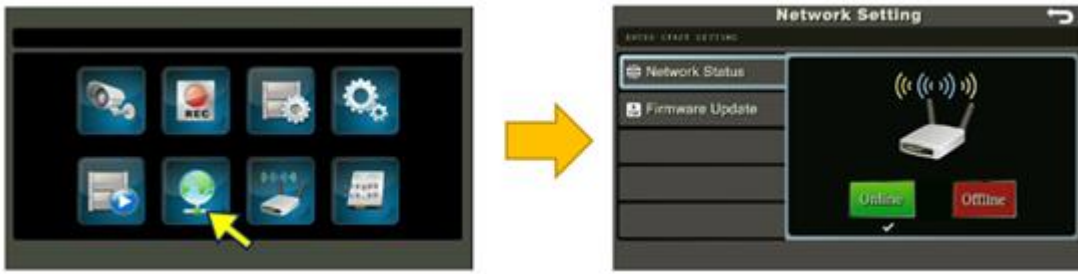
2. When hard disk drive file system is not recognized, it shows “CHK FRMT” means to check HDD format.
- Try to reboot the NVR; or
  - Reformat the hard disk



## 5.8 Network Function

(a) Online Status

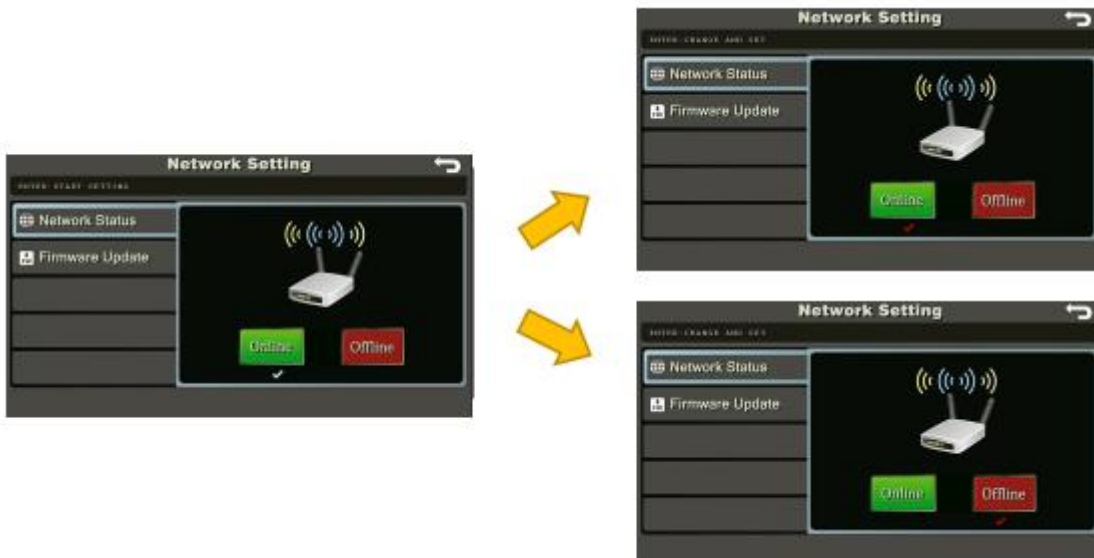
(b) Firmware Upgrade



### 5.8.1 Network Status

Activate or disable the network link for remote access.

1. Press [ENTER] button entering "Online Status" menu. By default, the NVR is in "ONLINE" status
2. Use [LEFT / RIGHT] buttons to change the status
3. Press [ENTER] button to confirm change; OR [MENU] button to exit



*Note: When the NVR is OFFLINE, user will not be able to remote access NVR*

### 5.8.2 Firmware Update

To update the firmware of NVR or camera unit

1. Insert a Micro SD card containing new firmware (BIN format) into the card slot at the back panel of the Receiver.

| Name      | Description          |
|-----------|----------------------|
| _TX.BIN   | Camera Unit firmware |
| RX.BIN    | NVR firmware         |
| 98600.BIN | Network firmware     |

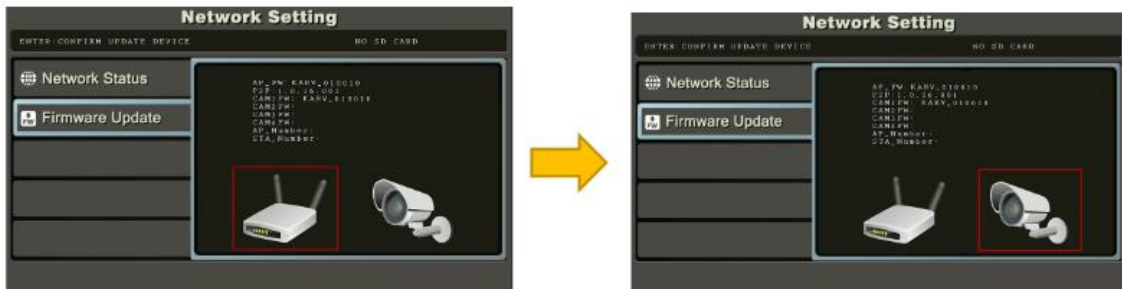
2. Press [ENTER] to go into the "Firmware Update" menu. Firmware version information will be shown on right-hand side of the screen. For example,
3. Use [LEFT / RIGHT] buttons to select to update NVR/P2P (left hand side NVR image) or Camera (right hand side camera image).

```
NVR: KARV_022700
P2P: 1.00.09.02
CAM #1: KARV_022700
CAM #2: KARV_022700
CAM #3: KARV_022700
CAM #4: KARV_022700
```

4. Press [ENTER] to start update.

Note:

Firmware update may take few minutes. After firmware update, user may check the firmware version of each unit to confirm whether update succeed.



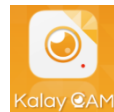
## 6 MOBILE APPS “Kalay Cam” by TUTK

Kalay Cam supports both iOS & Android OS.

Note:

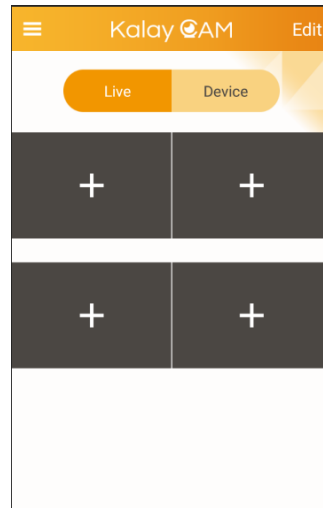
- (i) Connect the NVR to a router with LAN cable
- (ii) For the first time to register the NVR to the P2P server, connect the smartphone's WIFI to the same router
- (iii) Make sure P2P connection is not blocked by router setting, network flow control, firewall...etc.
- (iv) For better user experience, recommend to close other smartphone background applications

1. Go to Apple AppStore or Android Google Play and download “Kalay Cam”
2. After installation, click Kalay Cam icon to start





Start Up Screen

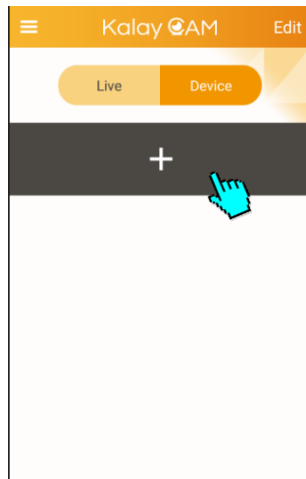
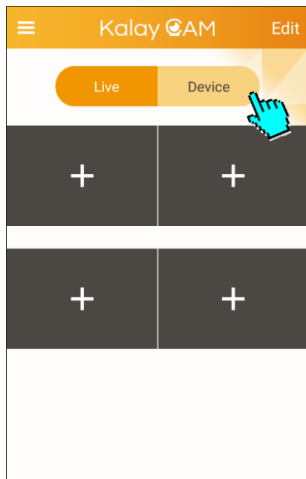


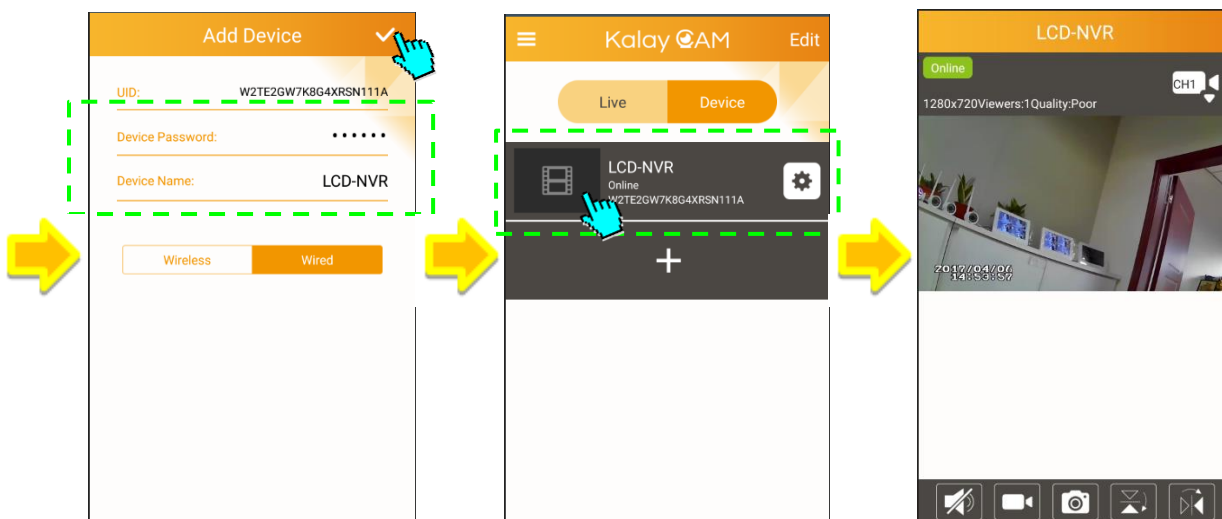
Main Page

## 6.1 Quick NVR Setup using Kalay Cam

1. In MAIN PAGE, 2 modes – LIVE and DEVICE – are available. Default is LIVE mode
2. Click [DEVICE] to Camera mode screen
3. Then click [+] sign to add NVR. Maximum allow user to add 4 NVRs.
4. Scan QR-code containing UUID
5. Enter the password. User may also change the name of the NVR for easy identification.

Note: Default password is "888888"; Default name is "LCD-NVR"



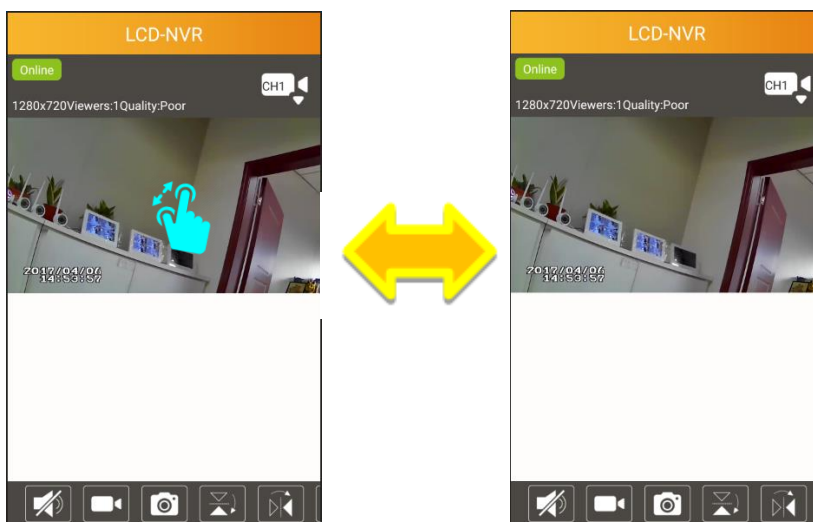


6. Wait the APP search for LCD-NVR and adds to the device list
  7. Click the LEFT-side of added LCD-NVR to start Live View.
- Note: Camera #1 of NVR is displayed by default
8. Rotate smartphone 90 to view in landscape mode (Full Screen)
  9. Zoom & Pan

In both portrait & landscape mode, user can zoom and pan video

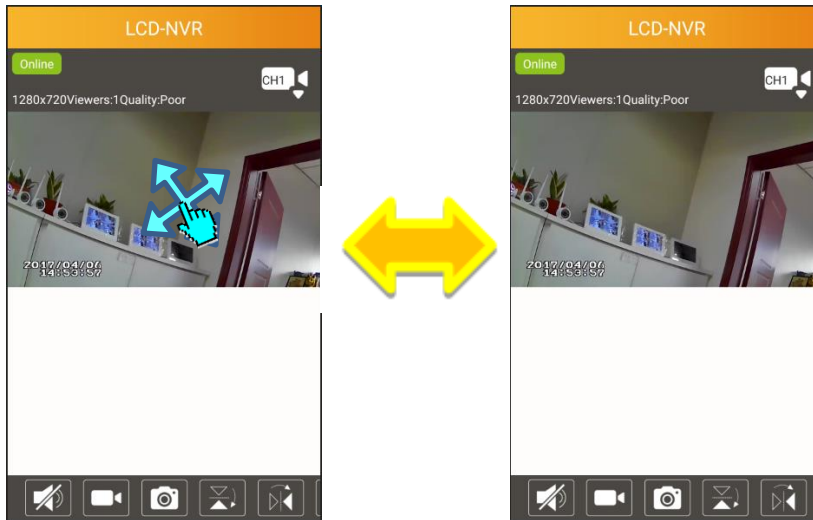
### Zoom

Use 2-points finger slide motion to zoom in/out video screen

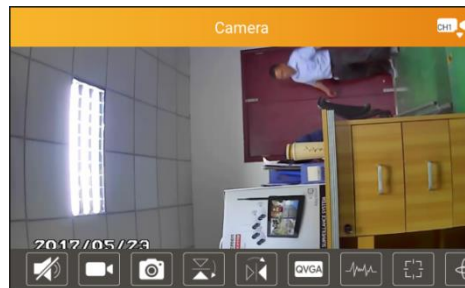
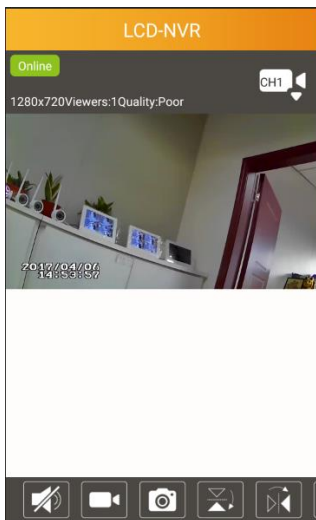


## Pan


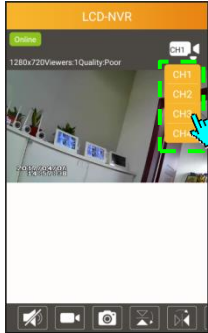





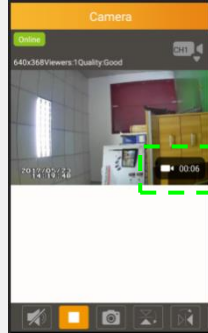



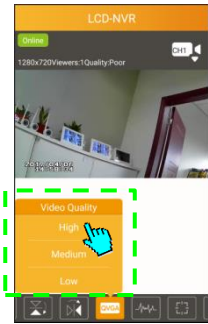

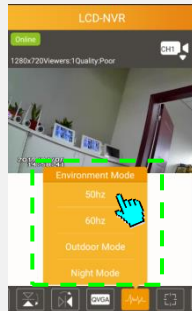
After zoom in, swipe on the display to pan the video



## 6.2 More functions in LCD-NVR mode



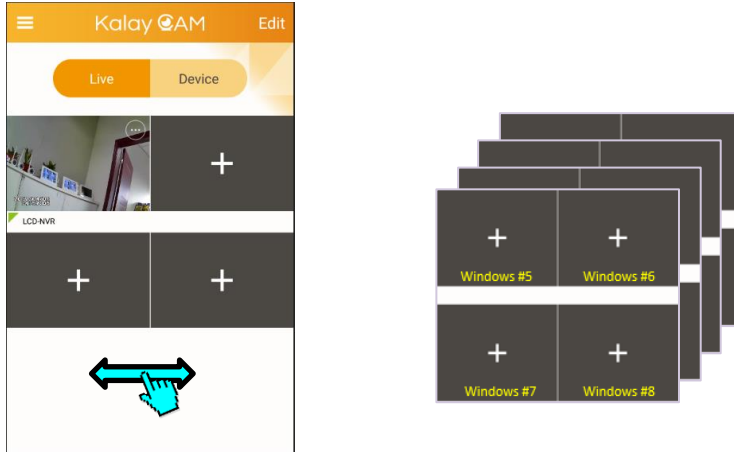
In Landscape mode, CLICK screen once for the MENU bar

|  |  |   |
|--|--|---|
|   | <p><b>Channel Select</b></p> <ul style="list-style-type: none"> <li>• By default, camera #1 is displayed when NVR is added</li> <li>• User can view another channel of the NVR <ul style="list-style-type: none"> <li>○ Click [Channel Select] icon to get the channel drop list</li> <li>○ Click the desired channel to change the Live View channel display</li> </ul> </li> </ul>   |    |
| <br> | <p><b>Video Record</b></p> <ul style="list-style-type: none"> <li>• Click  to START;<br/>or click  to STOP video recording</li> <li>• Record duration is shown on screen<br/></li> <li>• Video are stored locally in smartphone's memory storage with directory named as "/Record"</li> </ul> |    |
|   | <p><b>Snapshot</b></p> <ul style="list-style-type: none"> <li>• Click to take a snapshot</li> <li>• Toast message box indicates snapshot taken OK<br/></li> <li>• Photos are stored locally in smartphone's memory storage with directory named as "/Snapshot"</li> </ul>   |   |
|   | <p><b>Video Quality</b></p> <ul style="list-style-type: none"> <li>• Click to select video quality</li> <li>• Select [HIGH] for 1280x720; or<br/>Select [LOW] for 640x360</li> </ul>   |  |
|   | <p><b>Environmental Frequency</b></p> <ul style="list-style-type: none"> <li>• Click to change environmental frequency according to local standard – 50Hz or 60Hz</li> </ul>   |  |



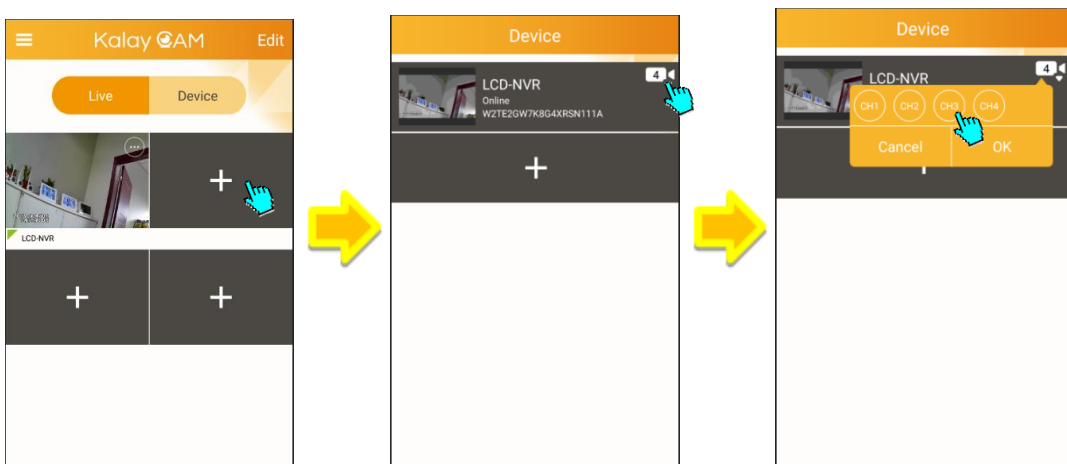
### 6.3 LIVE mode setting

- Kalay Cam starts at LIVE mode by default
- In DEVICE mode device list, click [LIVE] tag goes back to LIVE mode  
 In LIVE mode screen, camera windows are arranged in pages. Each time when 4 windows in 1 page are all occupied, new page is automatically created, swipe LEFT/RIGHT to see windows in other pages.



#### Add NVR to LIVE mode window

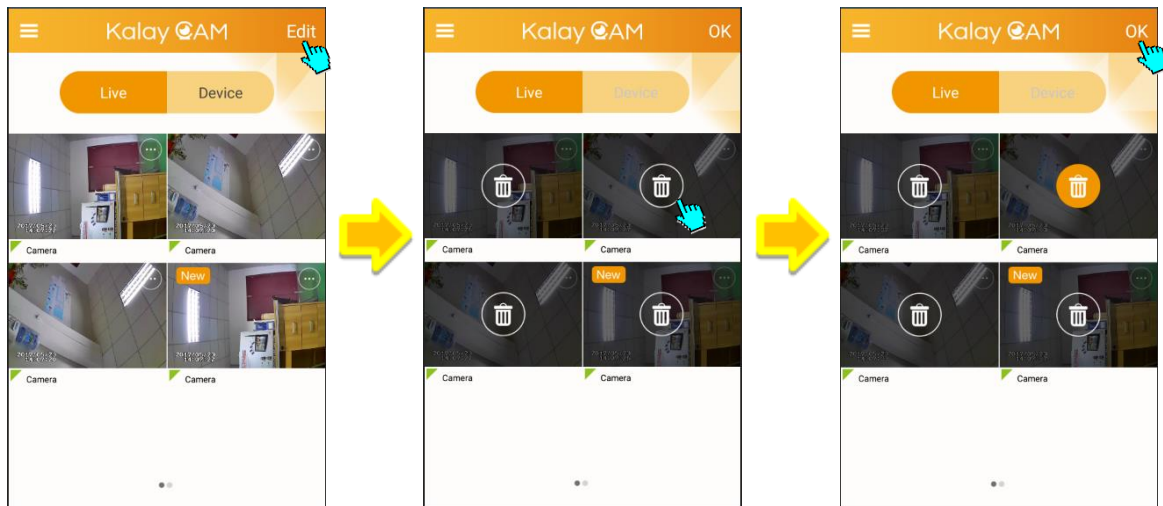
1. Each time user adds a new NVR, Kalay Cam automatically adds the camera to the first available window. For example, in above image, windows #2 is empty, when user adds a new NVR, it will be added to windows #2.
2. Manually adds a NVR's camera
  - a. Click on an empty window for the Camera List (NVR List)
  - b. Click the camera icon (Top Right corner) and select one of the 4 camera of the NVR
  - c. Click OK to add the camera to the window



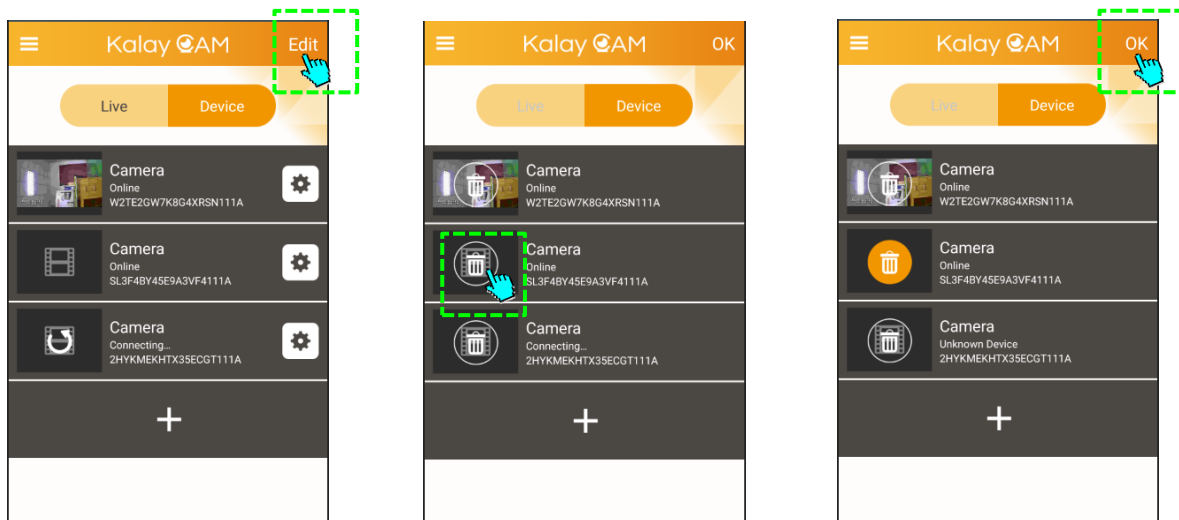
### Remove NVR from APP

1. In LIVE or DEVICE mode, click [EDIT] at TOP-RIGHT corner
2. Select one of the window or camera
3. Click the recycle bin icon
4. Click [OK] to remove

#### Live Mode

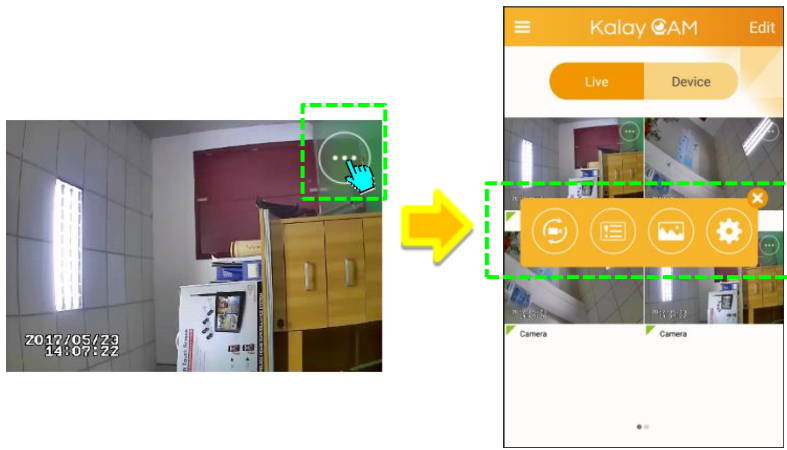


#### Camera Mode



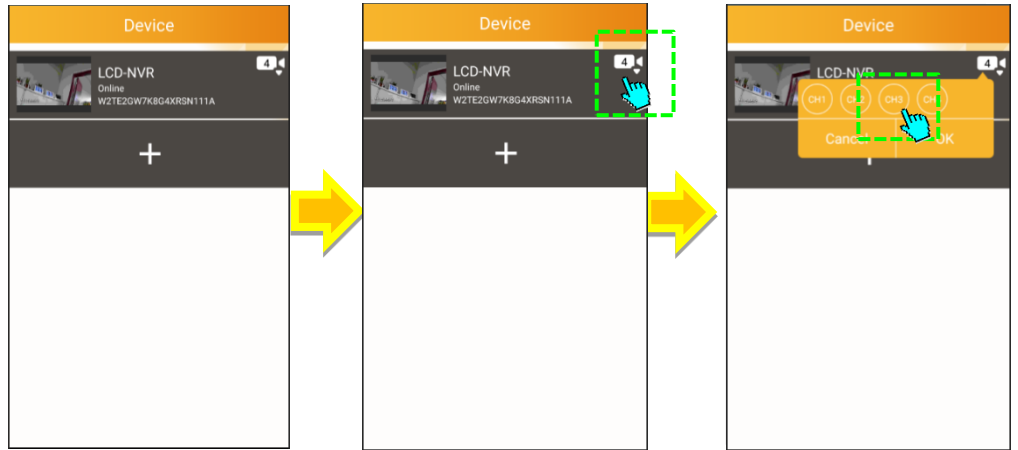
### Other Window Menu Functions

Click the MENU icon (Top Right corner) of each camera windows for the Camera Window Menu



### Change Camera

- Click for the Camera List (NVR list)
- Click on the Camera icon (Top right corner) of the desired NVR
- Select desired camera channel, then click [OK] to change

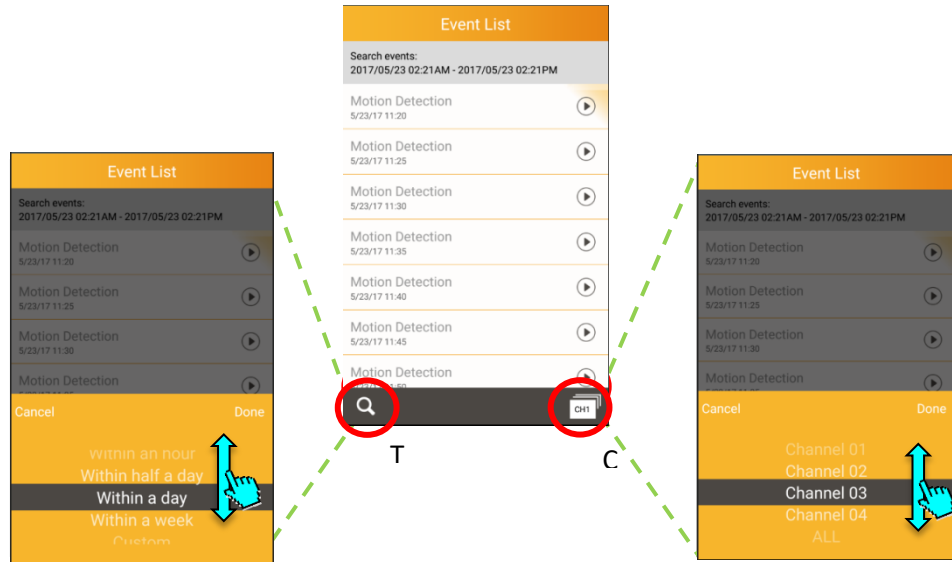


Note: User may assign the current window

- i. To another camera of the same NVR; OR
- ii. To a camera of another NVR

### Event List

- Click to browse list of video file stored in NVR HDD of the selected camera channel



User may also click on the search option icons (bottom bar), 2 video files search option are available, slide up or down to select:

#### (1) Time search

File list is filtered for time period

- Within an hour
- Within a day
- Within a week
- User specified time frame

#### (2) Channel search

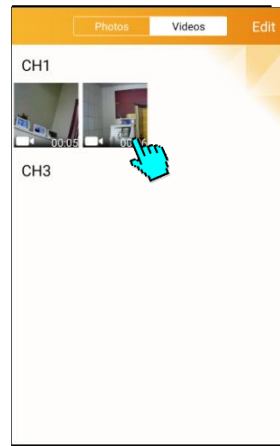
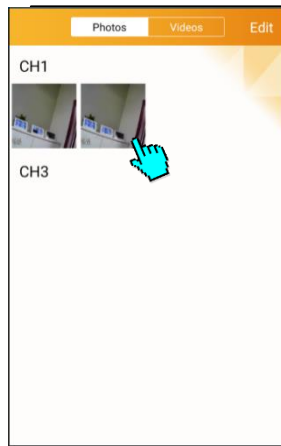
File list is filtered per camera channel basis

- Channel 1
- Channel 2
- Channel 3
- Channel 4
- ALL channels

### Local Media File

- Browse media files (photos & videos) stored in smartphone
  - Photos – stored in “/Snapshot” directory
  - Video – stored in “/Record” directory

Simply click thumbnails to view photos or video clips. Video clips can be played back both in landscape & portrait mode.





## Camera Settings

Review NVR information and various options

- i. Camera information – UID, camera name & password(hidden)

UID: W2TE2GW7K8G4XRSN111A

Device Password: ••••••

Device Name: LCD-NVR

- ii. Change password

1. Simply enter Old password, New password, New password again
2. Click [OK] to confirm changes

Cancel Change Password OK

Old:

New:

Confirm:

- iii. Notification Interval

Turn notification ON or OFF

Notification Interval

No Limits

No Limits

1 min

3 min

5 min

10 min

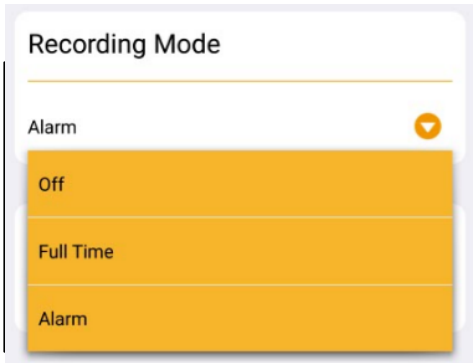
30 min

off

## iv. Recording Mode

Select Recording Mode

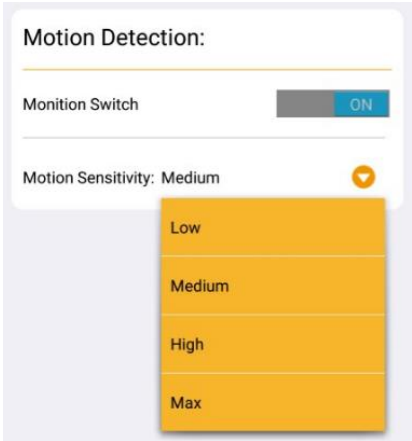
- i. Off – no recording
- ii. Full Time – Always record
- iii. Alarm – Record after motion trigger



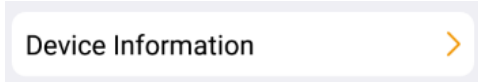
iv. Event Settings

Turns Motion Detection On or Off

Set Motion Detection sensitivity – LOW, MEDIUM, HIGH, MAX



v. Camera Information



Click to display NVR information

| Device Information |             |
|--------------------|-------------|
| Model:             | SN93566     |
| Version:           | 228.95.0.50 |
| Vender:            | Sonix       |
| Total size:        | 475488 MB   |
| Free size:         | 330858 MB   |

Model – Main Chipset information

Version – Firmware version

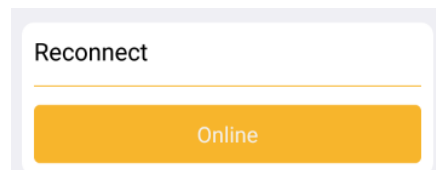
Total Space – HDD total available capacity

Free Space – HDD remaining capacity

vi. Reconnect

Display NVR online status – ONLINE or OFFLINE

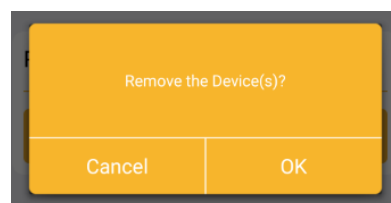
If OFFLINE, just click to reconnect again



vii. Remove this camera

Delete NVR registration in the APP

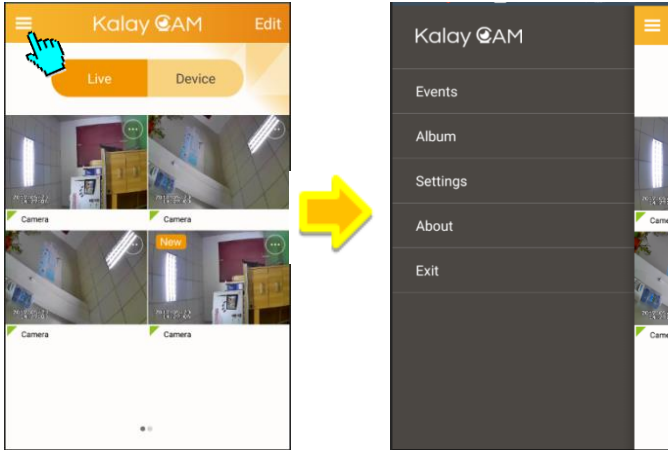
Click [Remove] and [OK] to confirm deletion of NVR





## Side-bar Menu

Click side-bar menu icon at TOP-LEFT corner to activate the menu

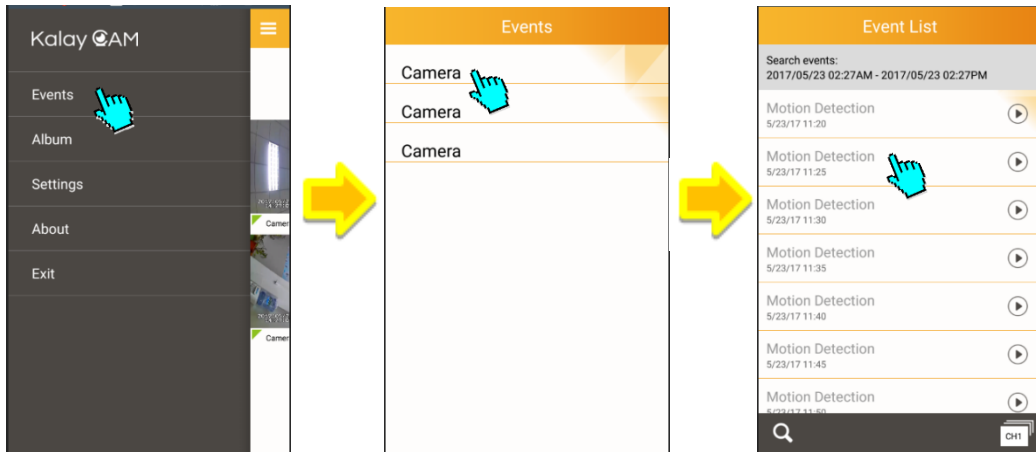


4 menu functions are available:

### 1. Events

Browse and playback video file stored in NVR.

- a. Click and select NVR to browse video file list
- b. Click on filename to playback video clips

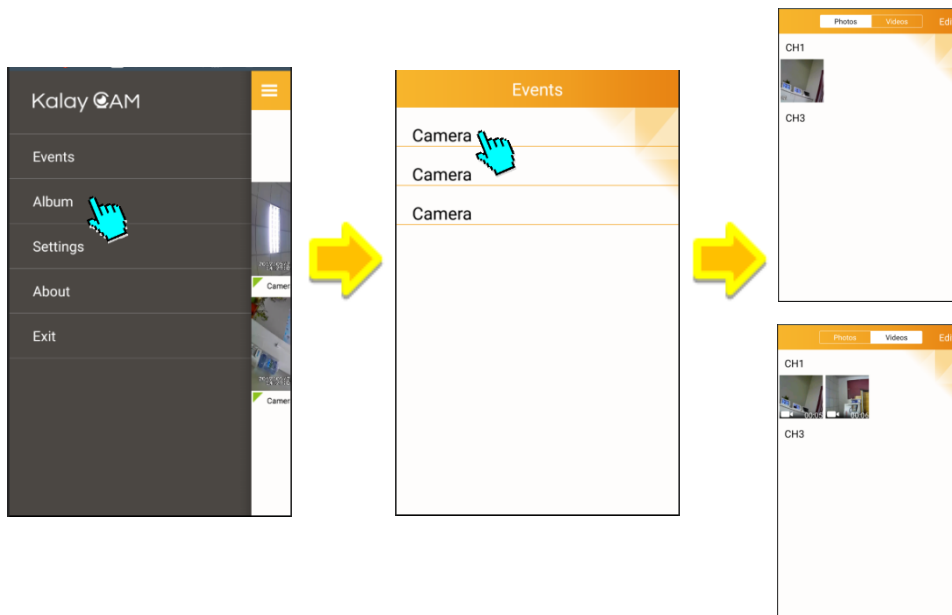


### 2. Album

Browse media files (photos & videos) stored in smartphone

- a. Photos – stored in “/Snapshot” directory
- b. Video – stored in “/Record” directory

Simply click thumbnails to view photos or video clips. Video clips can be played back both in landscape & portrait mode.



### 3. About

Display Kalay Cam version information



### 4. Exit

Click to close Kalay Cam.

**SIMPLIFIED EU DECLARATION OF CONFORMITY**

Hereby, **stabo Elektronik GmbH** declares that the radio equipment type  
**stabo smart i\_control**

is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available  
at the following internet address:

**[http://stabo.de/fileadmin/DoC/DoC\\_stabo\\_smart\\_i\\_control\\_DE\\_EN.pdf](http://stabo.de/fileadmin/DoC/DoC_stabo_smart_i_control_DE_EN.pdf)**

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