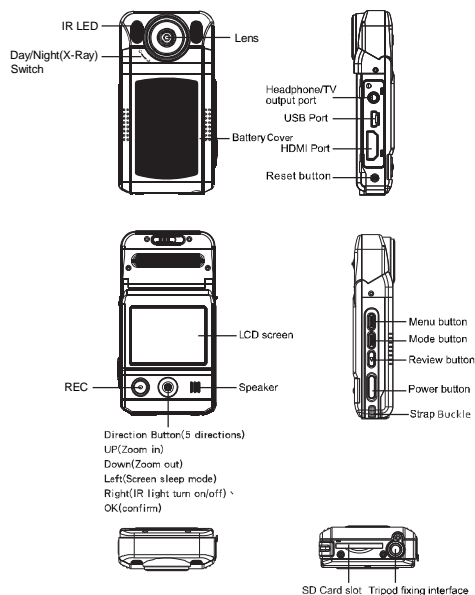


# User Manual (KHD-5000X)

## Features

- Normal Color Vision & IR X-Ray Vision
- KAYA DeepThru™ Technology Installed
- KAYA PF™ IR X-Ray Filter System Installed
- 30M Waterproof System for Beach & Pool Usage
- IR Night Vision Capability in Total Darkness
- 1080p Full HD
- 2.0" LTPS TFT LCD
- 1/2" High Definition CMOS Sensor
- 4X Digital Zoom
- MPEG-4 AVC/H.264 Video Format
- MIC and Speaker Equipped
- High Capacity Lithium-ion Rechargeable Battery
- Support SDHC Card Up to 32GB
- HDMI Port for High Definition TV
- Motion Detection Recording
- Sound Recording On/Off
- Loop Video Recording
- Set Video Recording Time
- Set 180-degree Reverse Shot
- Automatic Recording When the Car Engine Starts
- Screen Sleeping Mode

## Configurations



## Inserting Battery

1. Open the battery cover by pushing it down.
2. Insert the battery setting the "+" -" marks in position.

## Charging Battery

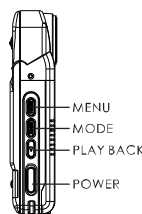
1. Turn off the camera before charging.
2. Connect the camera to PC or charger with the USB cable. When the screen is displayed, choose "Charge".
3. The screen will display "Battery Full" when charging is completed.

## Inserting & Removing Memory Card

1. Insert the memory card into the card slot until the card is tightly fixed.
  2. To remove the memory card, press it softly and then it will bounce out.
- NOTE:
1. Before using a SD card, check if it is locked.
  2. Make sure that the SD card is inserted in position. Incorrect insertion might cause damages to the KHD-5000X and the SD card.
  3. After the SD card is inserted into the card slot, KHD-5000X will automatically take the SD card as the default storage card. And all data stored before can not be read until it is removed.
  4. If the memory card is not compatible with the KHD-5000X, the card might not be read. In this case, remove the card and insert it again or insert another SD card.

## Basic Operation

- **POWER:** Press POWER button for about 1 second to turn on / off the camera.
- **MENU:** Press MENU button to set up the camera.
- **MODE:** Press MODE button to switch video/still image recording mode.
- **Playback:** Press Playback button to watch videos and pictures.



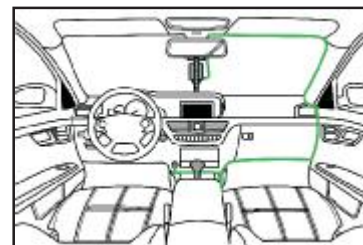
## IR X-Ray Vision Operation

1. Set the Day/Night Switch to Night
2. Press MENU and Set the Effect as Monochrome (Optional)

## Car Recording Operation

1. Set the "USB IN" to "Yes"(This will activate the auto recording function after the car engine starts)

1. Turn on the camera » Press the MODE button and change to recording mode » Press "MENU" » Choose "USB IN » Change to "Yes" » Press MENU to save and exit
  2. Set Recycle Recording to 1 minute mode (For more details, refer to "Recycle Recording"). Turn on the camera » Press the MODE button and change to recording mode » Press "MENU" » Choose "Recycle" » Change to "1 MIN" » Press MENU to save and exit
  3. Set Motion Detection Off (For more details, refer to "Motion Detection"). Turn on the camera » Press MODE button and change to recording mode » Press MENU » Choose "Motion Detect" » Change to "OFF" » Press MENU to save and exit
  4. Turn the IR LED On when driving at night (Optional)
- Turn on the camera » Press MODE button to change to recording mode » Press Direction key to the right and choose "Flash" » Set the Day/Night switch to Night » Done
5. Follow the below diagram to install the long USB cable, car bracket and the camera in your car.



## Setting Date and Time

1. Turn on the camera and press MENU button in any mode to enter the setting mode » Choose System Setup » Choose "Date" or "Clock" » Press Direction key to adjust date/time » Press MENU to save and exit
2. To display Time Stamp, press MENU button » Choose "System Setup" » Choose "Stamp" and set to "ON"

## Video Mode

1. KHD-5000X will automatically run to video mode after the power is on.
2. Press REC(record) button to start recording. To stop recording, press the record button again. During recording, timer and "•" symbol will be shown on the screen.
3. IR Light switch. Press the Direction key to the

right in recording mode to switch "IR Light Off", "Auto IR Light Detection" or "IR Light On Forcibly". When IR Light On, change the Day/Night switch to Night mode. Attention: When the battery shows only one grid, the IR light will automatically turned off.

## Photograph Mode

1. When the camera is powered on, it will automatically run to video mode. Press "MODE" button to switch to the Photograph mode. The upper left corner of the screen will show "8M" and the bottom of the screen will display the maximum photo capacity.
2. To use 4x digital zoom, press the direction key upwards and downwards.
3. While pressing the record button, the camera will make a sound. The sound means that the recording is completed.
4. Self-timer. Under the Photograph mode, press MENU and then choose "Self Timer". Change to "ON"

Tips:

1. Under any mode(video and photo) pressing the MODE button could change the mode circularly(video » photo » video)
2. Under video and photo mode, pressing the Direction key leftwards could review the videos or photos.

## Review Mode

1. Turn on KHD-5000X to Video mode. Press the Review button to enter into single-picture review mode. Press the Direction key leftwards and rightwards to review pictures or videos.
2. Press the Direction key downwards to index review mode. User can press the Direction key to review stored pictures or videos. Press "OK" to enter single-picture review mode and press "MODE" to exit. If a displayed picture is tagged with "u" then it symbolizes video information. Pressing "OK" will play the video. Pressing "OK" again will stop playing the video. While playing a video, you can use the Direction key to the left, right, up and down. To exit from the playing mode, press "OK". Pause the playing video and then press the Direction key to the left or right to go to the next file.
3. Capture. To capture a photo while reviewing video, press "OK" and pause the video and then press the REC button until the sound is returned. The captured photo is stored in the storage device. Press "OK" to continue to review the video.

4. Deletion. While reviewing pictures or video press the MENU and then Delete key will appear on the screen. Press "OK" to delete and press the Direction key to the right to choose deleting file then press "OK" to confirm.

5. Slide Review. During the review condition(play/record) you may select "menu" key, then press the button downwards to set to "Slide Review". Press "OK" to confirm.

### Motion Detection

The Motion Detection will detect moving objects. The camera will be automatically turned on and record them for 30 seconds. Turn on the camera » Press the MODE button and change to recording Mode » Press MENU » Choose "Motion Detect" and set to "ON"

Tips:

1. Turn off this function when used as a car recorder.
2. When the motion detection is on and the camera is recording, the motion detection will not work. To use this, the recording must be stopped.

### Recycle Recording

Setting the Recycle to "1 minute" will automatically make the camera to create a file after recording for 1 minute. When the Recycle Recording is activated, the camera will reserve a part of storage for the Recycle Recording. The reserved storage will be increased as much as the longer Recycle Recording time. Turn on the camera » Press the MODE button and change to recording Mode » Press "MENU" » Choose "Recycle" » Change "1 MIN" » Press MENU to save and exit

### Video Flip

To display the video reversely 180 degree when the camera is installed up side down. Turn on the camera » Press the MODE button and change to recording mode » Press MENU » Choose "Video Flip" » Change to "Yes" » Press MENU to save and exit

### Duration

The camera will be standby mode after 15 minutes recording. Turn on the camera » Press the MODE button and change to recording Mode » Press MENU » Choose "Duration" » Change to "15 MIN" » Press MENU to save and exit  
Tips: Turn off this function when used as a car recorder.

### Recording While Powered Mode

After connecting the camera and power supply with USB cable the screen will display MSC/Charge/Power On. Choose "Power On" and then the camera can be used using an external power supply or charger.

Attention: The camera will be turned off when the USB cable is disconnected.

### Screen Sleep Mode

In the photography or video mode, press the Direction key to the left and then the camera will be the screen sleep mode. If you press the Direction key to the left once again the camera is reverted to the original mode.

### USB Backup Mode

After connecting the camera with USB cable the screen will display MSC/Charge/Power On. Choose "MSC" » Open the desktop "My Computer". There are two removable disks. One is the internal memory and the other one is the SD memory card. Under the "Removable Disk", path to DCIM\100MEDIA" to find the stored movies. If you do not insert the SD card, the internal memory is used as a removable disk.

### Connecting KHD-5000X to TV

1. Connect KHD-5000X to HDTV with the HDMI cable to review photos and videos.
2. Connect KHD-5000X to TV with a TV cable to review photos and videos.

Tips: No driver is needed to install. The removable disk can be used only when the camera is on.

### Specifications

Sensor	5 Mega Pixels CMOS
Lens	4 Pieces Fix Focus Lens 7.45mm
IR LED	4 PCS
IR Night Vision	3~5M
IR X-Ray Type	DeepThru™ Technology
Display	2.0" LTPS TFT LCD
Video Output	HDMI: CTS1.2 Compliant, Support 1080i/720p Output Mode, Composite: NTSC/PAL
Still Image	Still Image Resolution: 2592x1944(Jpeg), 3200x2400(Jpeg), 4000x3000(Jpeg) Maximum Output Picture Element: 12M, 8M, 5M
Recording	MOV

Format	
Recording Resolution	1920x1080(30fps), 1440x1080(30fps), 1280x720(30fps), 848x480(60fps)
Video Codec	H.264
Zoom	4X Digital Zoom
Recording Media	External: SDHC/MMC Card(Up to 32G SDHC Card)
Audio	MIC and Speaker(Mono) Equipped
Shutter Button	Electronic Shutter
Shutter Speed	1/2~1/1000 Second
White Balance	Auto / Sunny / Cloudy / Tungsten / Fluorescent
Connection Port	USB 2.0 / HDMI / TV
Battery	3.7V 900mAh Rechargeable Lithium-Ion Battery
USB	High Speed USB 2.0
Size	98.2(L) x 53(W) x 22.5(H)mm
Weight	90g
Working humidity	10% ~ 80%
Temperature	-10℃ ~ 60℃

### Mode/Menu/Settings

Mode	Menu	Settings
Video	Size	1920*1080/1440*1080/1280*720/848*480
	EV	+0/-0.3/-0.7/-1/-1.3/-1.7/-2/+2/+1.7/+1.3/+1/+0.7/+0.3
	White B	Auto/Sunny/Cloudy/Tungsten/Fluorescent
	Contrast	Standard/Hard/Soft
	Sharpness	Standard/Hard/Soft
	Effect	Vivid/Monochrome/Negative/Sepia/Art/Off
	Duration	No/15min/30min/45min
	Recycle	On/15min/10min/1min
	Motion Detection	On/Off
	MIC	On/Off
Pictures	Shutdown Delay	Power Off /No/10sec/5min/10min
	Size	12M/8M/5M
	EV	+0/-0.3/-0.7/-1/-1.3/-1.7/-2/+2/+1.7/+1.3/+1/+0.7/+0.3

Review	Quality	Fine/good/normal
	White B	Auto/Sunny/Cloudy/Tungsten/Fluorescent
	Contrast	Standard/Hard/Soft
	Sharpness	Standard/Hard/Soft
	Effect	Off/Art/Sepia/Negative/Monochrome/Vivid
	Self Timer	No/Yes
	Burst	No/3pics/5pics/10pics
	Delete	No/Yes
	Slide Show	No/1sec/3sec/5sec
	System	Volume
Language		English/Japanese/Chinese/Korean
Date		Y/M/D
Clock		Y/M/D/T
Format		Cancel/Yes
Sys.Reset		No/Yes
Auto Off		Off/1min/3min/5min
Light freq		50Hz/Auto/60Hz
Stamp		Off/On
Version		V.0000 00 0000

### Video Storage Capacity

Memory	H.264 1080P	848*480P(WVGA)	2592*1944(5M)	3200*2400(8M)
8GB	80min	200min	4720pcs	3193pcs
4GB	40min	100min	2360pcs	1565pcs
2GB	20min	50min	1180pcs	753pcs
1GB	10min	25min	590pcs	386pcs

### Operating Symbols

