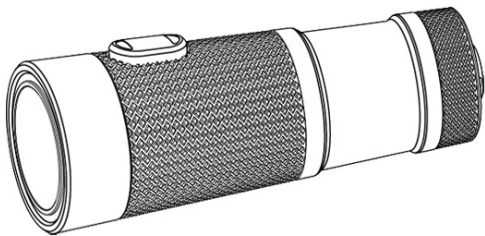


# **Action Cam**

## **HD-99AW**



# **User Manual**

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## 1. Introduction

Welcome to the world of digital imaging. The following information will help you to use your **Action Cam HD-99AW** (product name used for short as **Sport DV** below) to its full capabilities.

Before you install and operate the product, please take a few minutes to read through this manual. It provides proper instructions for you to install and operate the product.



The electronic device may be affected by static electricity interference. Please plug-in / out and wait a few minutes to start this function.

## ● System Requirements

### PC System Requirements

- ◆ Intel® Core2Duo 1.8G or AMD equivalent CPU
- ◆ Hi-speed USB2.0 port
- ◆ 1 GB RAM internal memory minimum
- ◆ nVIDIA GeForce MX440 or above, AMD (ATi) Radeon 9200 or above
- ◆ DirectX 9.0 or higher
- ◆ Windows® XP (SP2 or higher) / Windows Vista™ / Windows 7™, Windows 8™

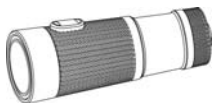
**Note:** If your system is Windows XP Service Pack I, please go to [www.microsoft.com](http://www.microsoft.com). It's free to update your system to Windows XP Service Pack II.

### Mac System Requirements

- ◆ Power PC G5 or Intel Core Duo processor recommended
- ◆ USB2.0 port
- ◆ 1 GB RAM internal memory minimum
- ◆ Mac OS 10.5 or above

## 2. Preparation

### ● Component & Accessories



Sport DV



User Manual



USB Cable



AC Adaptor



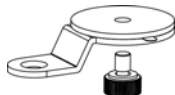
Camera Holder



Tripod Mount



Base Mount



Bracket



External  
Power Cable



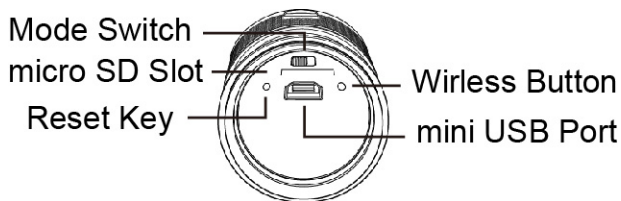
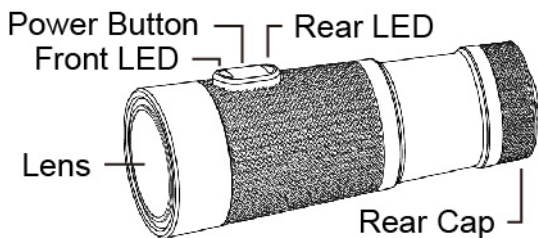
Front Glass  
(spare part)



micro SD Card  
(optional)

## ● Part Names

EN



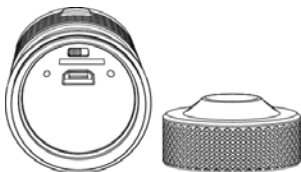
## ● Indicator LED

		Front LED	Rear LED
Power	<i>Off</i>	Off	-
	<i>On</i>	Blue, On	-
Record	<i>Off</i>	Off	-
	<i>On</i>	Blue, Slow Blink	-
Wireless	<i>Off</i>	-	Off
	<i>Booting</i>	-	Red, Slow Blink
	<i>On</i>	-	Red, On
Battery	<i>Low</i>	Blue, Quick Blink	-
	<i>Charge</i>	-	Green, On
	<i>Full</i>	-	Off
SD Card	<i>No Card</i>	-	Red, Quick Blink
	<i>Card Full</i>	-	Red, Quick Blink

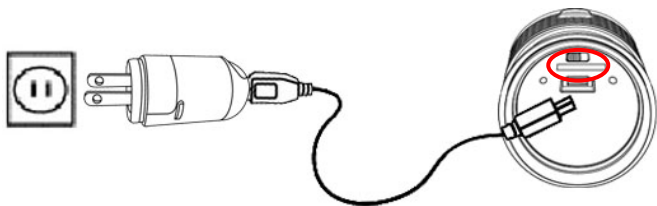
### 3. Charging

EN

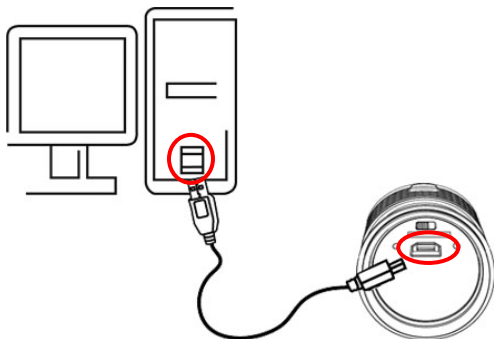
1. Remove the **Rear Protective Cap** of the **Sport DV** and connect the supplied mini USB cable into the **Sport DV**.



2. Plug the USB cable into the AC wall adaptor, car adaptor, or a PC / Mac USB port.







3. The **Rear LED** of the **Sport DV** will illuminate with **Green** to tell you it's charging.
4. When the **Green LED** turns off, the battery is full and charging is complete. Please disconnect the USB cable.

**Note:** The **Front LED** will blink **Blue** and auto stop record, save file and power off after 10 seconds when the battery power is low. Please reference the charging procedure to recharge it.

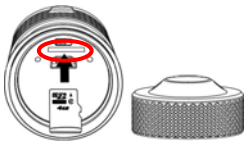
## 4. Recording

EN

### ● Car Mode

#### ■ Circulated Recording

1. Remove the **Rear Protective Cap** of The **Sport DV** and insert a microSD card (optional) in the **microSD Card Slot**.

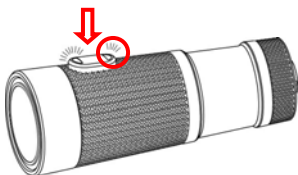


2. Slide the **Mode Switch** to the **Left** side.

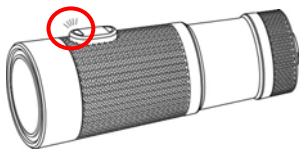


- Note:** 1. In **Circulate Record Mode**, the **Sport DV** circulate record video and overwrite the oldest recorded file first.
2. The recorded file divides automatic and user can define each 1, 3, 5 minutes per file.  
(Please refer to page 21 "**8 Expert Mode**".)

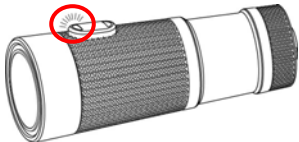
3. Hold down the **Power Button** for 3 seconds then release, the **Sport DV** illuminates the **Blue Front LED** and vibrates 3 times. The **Rear LED** illuminates with **Red** and boot the wireless module.



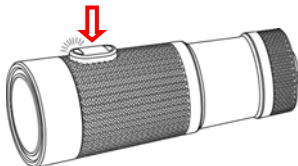
4. The **Sport DV** start recording automatic. The **Blue Front LED** blinking slowly and vibrates 1 time.



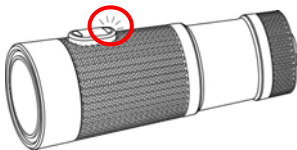
5. To stop record, press and release the **Power Button**. The **Sport DV** stops record, save file and vibrates 1 time. The **Front LED** illuminate with **Blue**.



6. Hold down the **Power Button** for 3 seconds and release. The **Front LED** of the **Sport DV** turns off and vibrates 3 times then power off.



**Note:** 1. The **Rear LED** will blink quickly with **RED** when the micro SD card has full or there is no micro SD card inserted into the micro SD card slot. The **Sport DV** vibrates until power off.



2. The wireless module will boot at the same time when power on. The **Rear LED** illuminates with **Red**. Please refer to page 16 "**5 Wireless**" for more information.
3. The file name format is **CAR\_0001.AVI**.
4. Always check the SD card space and make sure the camera has enough space to save new files.
5. The camera will auto power on and record when plugged in with the mini USB cable and an external power supply.
6. The camera will auto stop recording, save file and power off when the external power is disconnected from the mini USB port.

## ■ Accidental Record

The built-in **3-axis G-force Sensor** always detects strong forces from any directions. When a rapidly variational force (like a collided accident) was be detected during the video record. The current recording file will be locked and can't be overwritten even the memory card is full.

**Note:** 1. Base on the situation of the traffic to adjust the sensitivity of G-force Sensor. If the sensor is too sensitively that will easy to create a locked file just a slight variation.

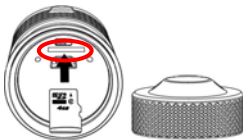
(Regarding how to adjust the sensitivity of G-force sensor, please refer page 21 "**8 Expert Mode**".)

2. The file named format is **SOS\_0001.AVI**.

3. Always check the SD card space and make sure the camera has enough space to save new files.

## ● Sporty Mode

1. Remove the **Rear Protective Cap** of the **Sport DV** and insert a micro SD card (optional) in the **microSD Card Slot**.



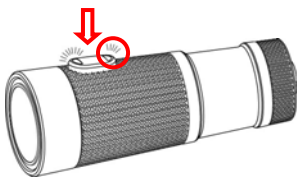
2. Slide the **Mode Switch** to the **Right** side.



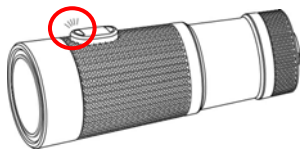
**Note:** 1. In Sporty Mode, the **Sport DV** doesn't circulate record and overwrite the oldest recorded file. It will auto power off when memory card is full.

2. The record file automatic divides each 3.5 GB.

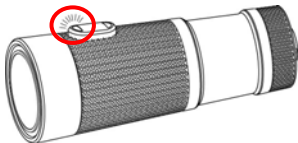
3. Hold down the **Power Button** for 3 seconds and release, the **Sport DV** illuminates the **Blue Front LED** and vibrates 3 times. The **Rear LED** illuminates with **Red** and boot the wireless module.



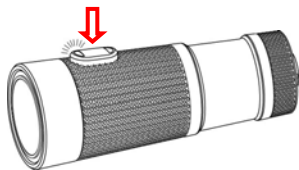
4. Hold down the **Power Button** for 1 second then release to start video recording. The **Sport DV** vibrates 1 time and the **Front LED** blink slowly in **Blue**.



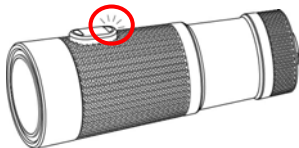
5. To stop recording, hold down the **Power Button** for 1 second then release, the **Front LED** stop blink and always on, vibrates 1 time and save the file.



6. Hold down the **Power Button** for 3 seconds then release. The **Front LED** turns off and vibrates 3 times then power off.



**Note:** 1. The Rear LED will blink quickly in RED and the **Sport DV** will vibrate until power off when the micro SD card has full or here is no micro SD card insert into the micro SD card slot.



2. The wireless module will boot at the same time when power on. The Rear LED illuminates with Red. Please refer page 16 "**5 Wireless**" for more information.
3. The file named format is **NECK0001.AVI**.
4. Always check the SD card space and make sure the camera has enough space to save new files.
5. The Sporty mode doesn't support the "**Accidental Record**" function.

## ● Time Lapse Mode

Time Lapse is an interval capture function. You can set an interval time (5 sec, 10 sec, and 20 sec) to take picture one by one automatic. And save all these pictures as a video after stop capture.

**Note:** The file named format is **TLP\_0001.AVI**.

(Please refer page 21 "**8 Expert Mode**" and page 25 "**Time Lapse**".)

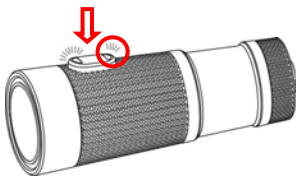


## 5. Wireless

Wireless function enables user to remotely control the **Sport DV** via App from iOS and Android smartphones and tablets.

### ● Wireless On

1. The wireless function activates automatic when the **Sport DV** power on.
2. The **Status LED** lights on in Red when wireless function has ready.



- Note:**
1. Before use the **Sport DV** App to control camera, make sure to connect your camera via WLAN setting in your smartphone or tablet.
  2. Default camera's **SSID Name** is "**NECKER\_V1\_Plus**" and the **Password** is "**1234567890**".

## ● Control via App

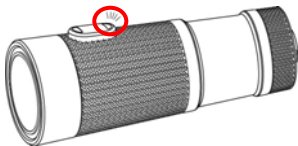
1. Download and install the **Sport DV App SMC (Smart Camera)** from App Store for iOS or Google Play for Android.



2. Remotely control the **Sport DV** via **SMC (Smart Camera)** from iOS and Android smartphones and tablets.

## ● Wireless Off

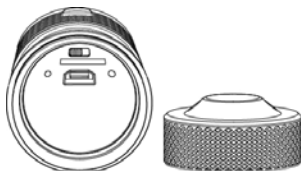
1. The wireless turns off when the **Sport DV** power off.
2. Or you can manual turn off the wireless function by press and hold the **Wireless Button** 1 second. The **Sport DV** vibrates 2 times, the **Real LED** turn off and close the wireless function.
3. Re-boot the wireless, press and hold the **Wireless Button** 1 second. The **Sport DV** will vibrate 2 times and turn on the wireless function.



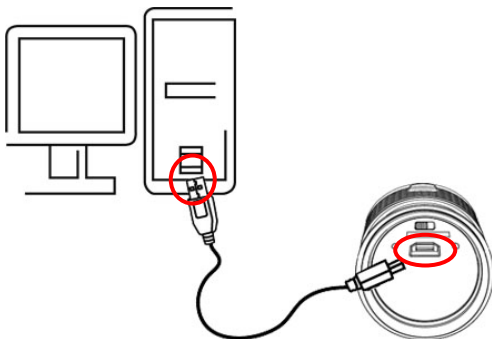
## 6. Download

### ● Download from Sport DV

1. Remove the **Rear Protective Cap** and power on.



2. Connect the supplied mini USB cable into the mini USB port of the **Sport DV**.
3. Plug the USB cable into a PC / Mac USB 2.0 port.

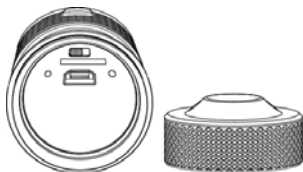


4. On a PC / Mac your **Sport DV** will mount to your computer as a mass storage device in MSDC mode.
5. You may download your video files from the **X:\DCIM\100\_\_DSC** folder to PC / Mac.

**Note:** Always eject device from PC / Mac.

### ● Download from micro SD Card Reader

1. Remove the **Rear Protective Cap**.



2. Take the micro SD card out and insert it to a compatible card reader. You may download your video files from the **X:\DCIM\100\_\_DSC** folder.

## 7. Playback

### ● Playback from PC

The video file format is **MOV** which can be played by the Media Player<sup>TM</sup>.

- ◆ **Windows 7:** The videos can be viewed by the built-in Windows Media Player.
- ◆ **Windows XP:** The videos can be viewed by the Windows Media Player Ver. 11.

### ● Playback from Mac

- ◆ **Mac:** Recommend use the VLC media player<sup>TM</sup>.

**Note:** VLC media player<sup>TM</sup> for Mac version can free download from this link.

<http://www.videolan.org/vlc/download-macosx.html>

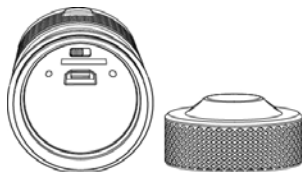
## 8. Expert Mode

EN

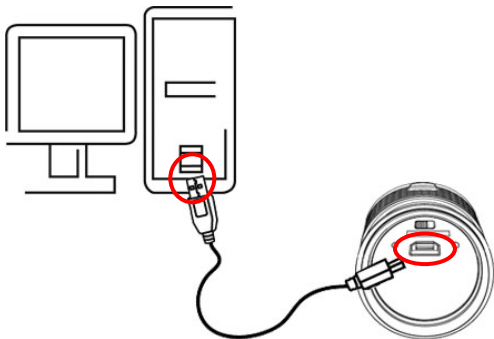
Allow user to adjust **Sport DV** full function settings by text editor.

### ● Load from Sport DV

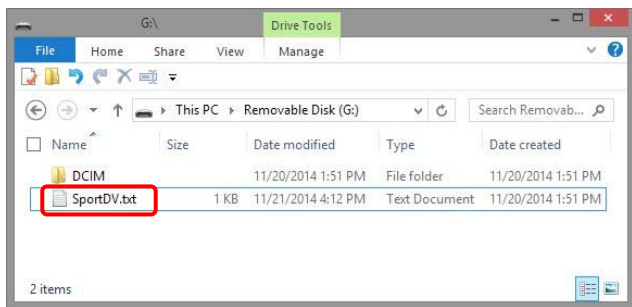
1. Remove **Rear Protective Cap** and power on.



2. Connect the supplied mini USB cable into the mini USB port of **Sport DV**.
3. Plug the other side of USB cable into a PC / Mac USB 2.0 port.



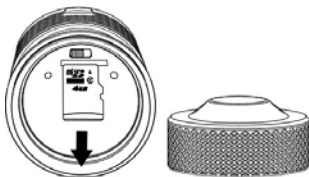
4. On a PC / Mac, your **Sport DV** mount to your computer as a mass storage device in MSDC mode.
5. Find the "**SportDV.txt**" (TEXT file) from the root folder of microSD card.



**Note:** Always eject device from PC / Mac.

## ● Load from microSD Card Reader

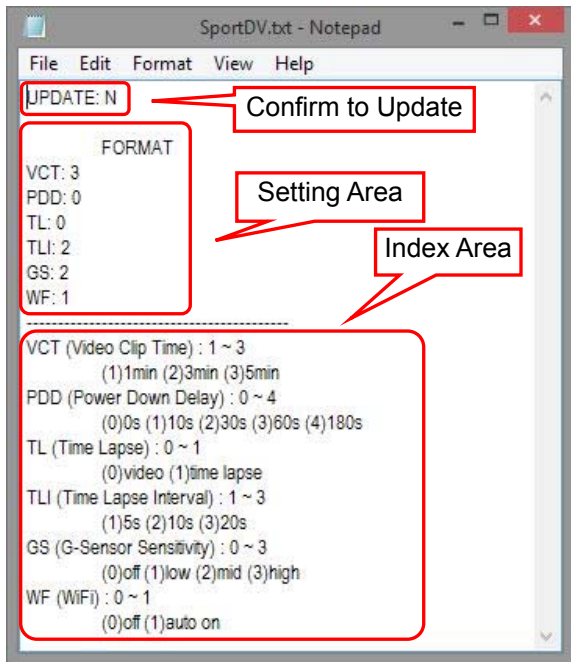
1. Remove the **Rear Protective Cap** of the **Sport DV** and take out the microSD card.



2. Insert the microSD card in a SDHC compatible card reader which has linked with a PC / Mac.
3. Find the "**SportDV.txt**" (TEXT file) from the root folder of microSD card.

## ● Adjust Sport DV Settings

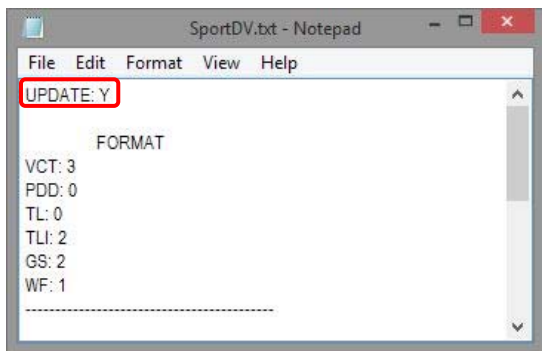
1. Open the "**SportDV.txt**" from text editor as below.  
(ex. Notepad for Windows.)



2. Reference the "**Index Area**" for the detail description and change the camera settings from the "**Settings Area**".
3. Revise the "**N**" of the "**UPDATE: N**" to "**Y**" to confirm all revised settings can be active after restart the camera. Save the "**SportDV.txt**" and exit the test editor.



**Note:** "N" will not change any current settings even the "SportDV.txt" has be changed.



4. Disconnect the USB cable or insert the microSD card back in the camera and power on the camera to update function settings.

**Note:** The "SportDV.txt" is created by the camera automatic.  
Even deleted the "SportDV.txt" and it will be created again after restart the camera. All the settings are the camera current used.

## ● Expert Mode Settings

### ◆ Video Clip Time

VCT: 3 (default = 5 minutes)

VCT (Video Clip Time) : 1 ~ 3  
(1)1min (2)3min (3)5min

**Instruction:** The length of the division time.

**Setting:** (1) 1 min. (2) 3 min. (3) 5 min.

### ◆ Power Down Delay

PDD: 0 (default = 0s)

PDD (Power Down Delay) : 0 ~ 4  
(0)0s (1)10s (2)30s (3)60s (4)180s

**Instruction:** The delay time of auto power off when the external USB power supply was disconnected.

**Setting:** (0) 0 sec. (1) 10 sec. (2) 30 sec.  
(3) 1 min. (4) 3 min.

### ◆ Time Lapse

TL: 0 (default = video mode)

TL (Time Lapse) : 0 ~ 1  
(0)video (1)time lapse

**Instruction:** Change the video record mode to the time lapse mode.

**Setting:** (0) video mode (1) time lapse mode

### ◆ Time Lapse Interval

TLI: 2 (default = 10 seconds)

TLI (Time Lapse Interval) : 1 ~ 3  
(1)5s (2)10s (3)20s

**Instruction:** Set the interval time of the time lapse.

**Setting:** (1) 5 sec. (2) 10 sec. (3) 20 sec.

### ◆ G-Sensor Sensitivity

GS: 2 (default = mid)

GS (G-Sensor Sensitivity) : 0 ~ 3  
(0)off (1)low (2)mid (3)high

**Instruction:** Adjust the sensitivity of the G-Sensor.

**Setting:** (0) off (disable) (1) low (2) mid (3) high

### ◆ Wifi

WF: 1 (default = auto on)

WF (WiFi) : 0 ~ 1  
(0)off (1)auto on

**Instruction:** Auto boot-up the wireless module when power on.

**Setting:** (0) off (1) auto on

## ● Specification

Sensor	3.4M (2304x1536) CMOS 1/3"
DSP	AIT 8427
Lens	6G+IR, F1.8, f2.61mm, Optical 160°
Video Resolution	Full HD : 1080p (1920x1080) 30 fps HD : 720p (1280x720) 60 fps
Video File Format	MOV
White Balance	Auto
Exposure	Auto
Video Encoder	H.264
Audio Encoder	AAC and AC3 mono, sample rate 48K
Audio Input	Built-in MIC
G-Force Sensor	3-axis
Wireless Module	IEEE 802.11 b/g/n standards compliant
Battery	Internal Li-Ion Rechargeable Battery 3.7V / 800 mAh
Storage	micro SDHC up to 32 GB
Connector	USB 2.0, mini USB B-Type (5 pin)
Dimensions	107.8 (L) x 34.0 (W) x 34.0 (H) mm

Specifications are subject to change without prior notice.

## **Federal Communications Commission (FCC) Statement**

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105(b)

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference and
- 2) This device must accept any interference received, including interference that may cause undesired operation of the device.



This symbol on the product or in the instructions means that your electrical and electronic equipment should be disposed at the end of its life separately from your household waste. There are separate collection systems for recycling in the EU. For more information, please contact the local authority or your retailer where you purchased the product.



# SMC

(Smart Camera)



## **Table of Contents**

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● Camera Setting.....	9
● Format Memory Card.....	10
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● Remote Controller Setting.....	12
5. Playback.....	13
● File in the Camera.....	13
● File in the Device.....	15



## 1. Wireless Connect

Wireless function enables user to remotely control the camera via App from iOS and Android smartphones and tablets.

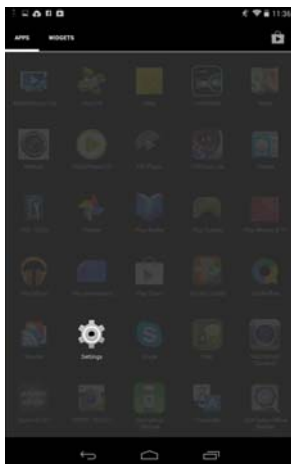
Download and install the App **SMC (Smart Camera)** from App Store for iOS or Google Play for Android.

### ● Wireless On

3. Power on the camera.
4. Make sure the wireless function of the camera has activated.

### ● Link with the App Device (Android)

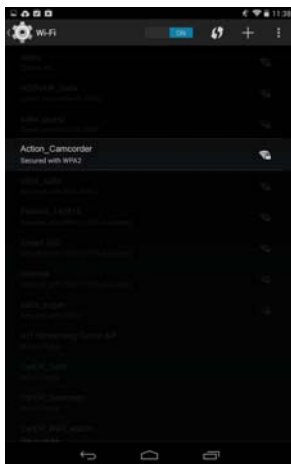
3. Press the **Settings** icon.



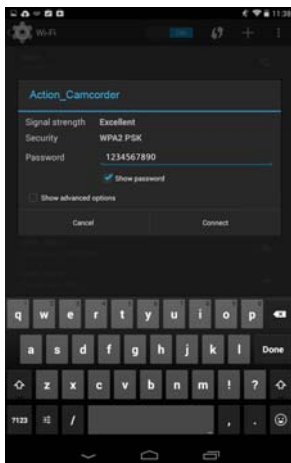
4. Check the **Wi-Fi** item and make sure it is **ON**.



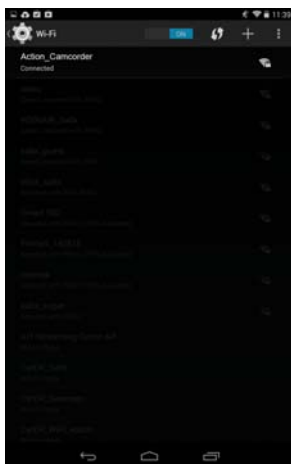
5. Press the **Wi-Fi** item and find the **SSID Name\*** (ex. **"Action\_Camcorder"**) then press it.  
 (\*See the user manual of the camera to find the default SSID Name.)



6. Input the **Password**  
“**1234567890**” then press  
the **Connect**.



7. Make sure the  
“**Action\_Camcorder**” has  
connected.



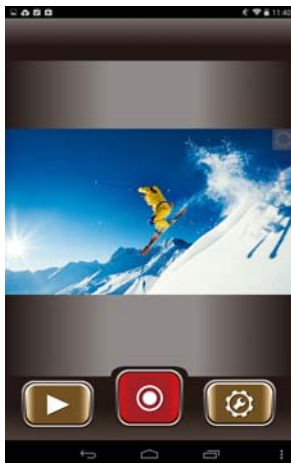
## 2. Control via App

EN

1. Find the **SMC** icon and press it.

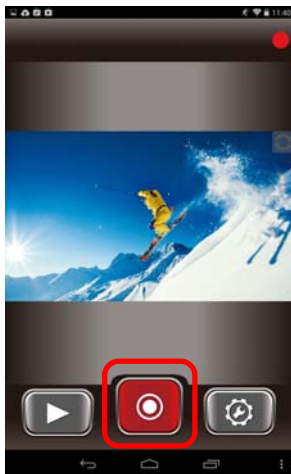


2. The live view of the camera display on the preview screen.



### 3. Record Video

1. Press the **Record** Button to start recording. The **Red Indicator** show on the right-up side.

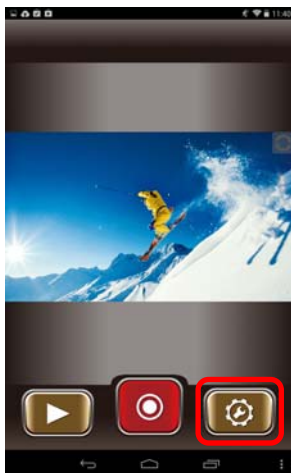


2. Press the **Record** Button again to stop record.

## 4. Setting

EN

Press the **Setting** Button to enter the setting screen.

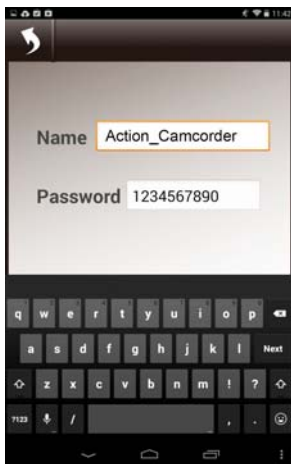


### ● Wireless Setting

1. Press the **Wireless** icon.

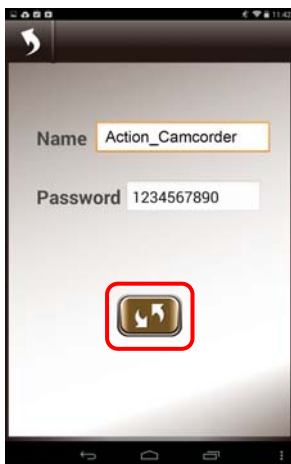


2. Change the **SSID Name** of the camera and **Password**.



3. Press the **Refresh** Button to activate the new name and password. Or press the **Return** Button to quit.

**Note:** If the SSID name and password have changed, the wireless will disconnect. You need to reconnect it again with the new SSID name and password.



## ● Camera Setting

1. Press the **Camera** icon to enter the **Camera Setting** screen.



2. Adjust camera setting and check camera status.





## ● Format Memory Card

This function can format the camera memory card from the mobile device.

Press the **Format Memory Card** icon to format the SD card of the camera.

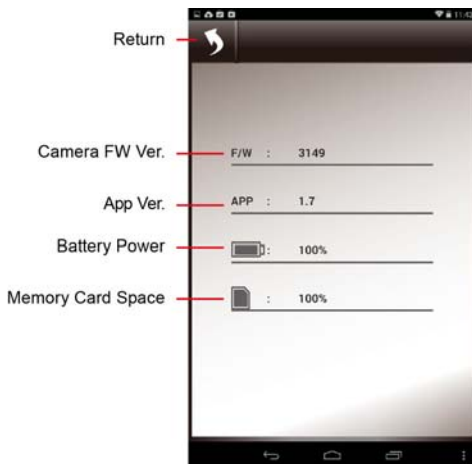


**Note:** All data and files in the SD card of the camera will be deleted. Make these files have backup or no use before format it.



## ● System Information

Press the **System Information** icon to check the system status of the camera and App.



## ● Remote Controller Setting (Optional)

This is an optional function. If the camera has support the remote controller, you can use this function to set up the remote controller.



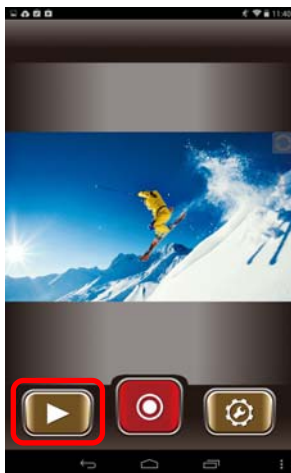
Press the **Remote Controller** icon to scan the supplied remoter controller.



## 5. Playback

EN

Press the **Playback** Button to enter the playback screen.



### ● File in the Camera



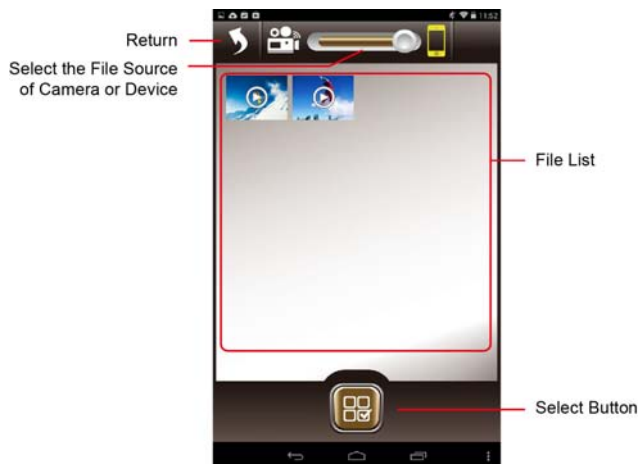
1. Press the **File** icon which you want to playback.  
Then see the video directly.



2. Press the **Select Box** which file you want to download to device.  
Then press the **Download** icon to download it.



## ● File in the Device



1. Press the **Video** icon.



2. Press the **Playback** icon to view the video.



3. Press the **Information** icon to show the file information.

