



# User Manual

Please read this manual carefully before using this product.  
Please keep this manual for future reference.  
V1.0

# PRECAUTIONS

**Please kindly take special note of the following before using your new Dash Camera.**

## **1. Setting Time Zone first( (important) )**

**Please set the time zone correctly according to Greenwich Mean Time (GMT) before using.**

**Please find TIME ZONE in MENU, use UP and DOWN button to set the local time zone.**

**For example: China adopts the GMT +8 time zone, set as GMT+08:00**

2. Remove the protective film from the lens.
3. Format the Micro SD card and format it again on the camera after a period of time use because there may have some file segment (If you are using Micro SD card larger than 32GB, please format the cards on a computer to be FAT32 format)
4. Use the original car charger and hard wire kit provided.
5. After operating for some time the camera surface will become hot, this is normal operation, and no need for concern. Take additional care when touching your camera after long periods of operation.
6. 3M sticker mount design makes your DVR more safer, prevent it fall off on that bump;

## **7. Over temperature protection for parking guard(Optional)**

Because extreme temperatures will cause damage to the camera, the smart temperature adjustment within the camera will react when the parking guard function is in operation.

When inner temperature reaches the preset temperature, the camera will power off and stop record automatically.

The user can preset the over temperature protection within the menu using the “power off temperature”. Temperature can be preset from 60° C-85° C (140F-185F), default is 80° C (180F).

## **8.Car battery voltage protection for parking guard.**

If car battery voltage falls below 11.5V, camera cannot receive power from the car battery and camera will be turned off automatically, Parking Guard function will not work at the same time, to ensure the car engine will start normally.

## **9.Built-in super capacitor battery operates only for a short duration.**

The built-in super capacitor can provide 6 seconds of working time in order to save files before powering off .The battery will be recharged automatically once input power is reconnected.

The camera will not power on without an external power supply connected.

**For additional operating instructions, please read the manual thoroughly before use.**

# **Other Cautions**

1. Do not expose the camera to moisture, dusty, dirty or sandy conditions.

Exposing the camera or the lens to these conditions can damage the camera and its components.

2. Do not expose the camera to high temperatures.

The normal operating temperature of the camera is 0°C to 40°C (32F to 104F).

High temperatures can shorten the life span of electronic devices, and extremely high

temperatures will shorten the super capacitor life and/or degrade the plastic components. Note extreme temperatures can be achieved in parked cars in direct sunlight. Exposing the dash camera to strong sunlight when using Motion Detection mode may cause the camera to malfunction or become damaged as the temperature can be too high in your car in summer or during high temperature conditions.

3. Do not expose the camera to cold environment.

Extremely low temperatures can damage electronic components; if there is water or moisture in cold environments, freezing water can cause damage, as thawing. Do not attempt to dismantle or open the casing. Doing so may result in electrical shock and will most likely result in irreparable damage to the camera.

4. Do not mistreat the camera, dropping, sudden impact, and vibration can cause damage to the camera.
5. Do not clean the camera with chemicals, cleaning solution or detergents. Only a slightly damp cloth should be used.
6. Before using the camera, please format the memory cards in the camera or computer to avoid potential camera or card malfunction. Memory cards also need to be formatted regularly to avoid potential camera or card malfunctioning.
7. There may be a layer of plastic film on the LCD screen and the lens, this is intended to prevent any scratching during transportation. Please remove the protective film from the lens before using.
8. The camera uses a built-in super capacitor to get power from the car, due to this the start up time may be a little longer (about 10 seconds). On the first occasion when connected to a computer. The camera may not connect with the computer or the computer may not detect a USB flash. This is normal in the first time instance. If this occurs please remove the plug and then re-plug USB cable to the computer. This will resolve the issue.
9. The camera will start to record automatically once the car engine is started.
10. Please set the time zone, date and time correctly before using camera.

## ACCESSORIES

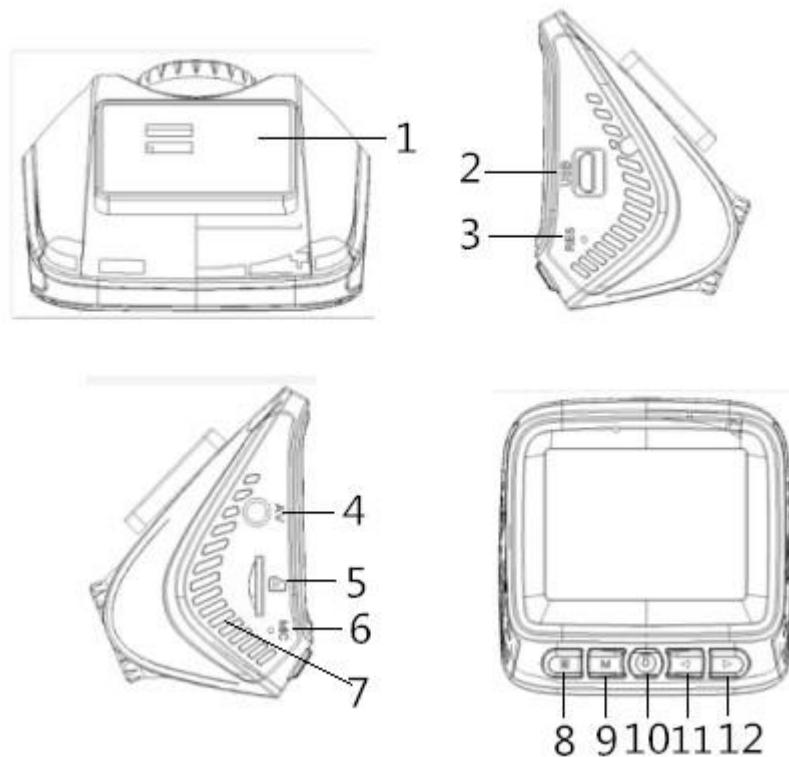
Before using this product, please make sure that your camera package consists of all the following items. Please contact the distributor in case of any missing components.

Name	Quantity	Name	Quantity
Camera	1 piece	Car Charger	1 pieces
		Double side tape	2 pieces
Cable Clip	1 bag (6 pieces)	User Manual	1 piece
Static sticker	2 pieces	Lens Cleaning Cloth	1 piece
Gift box	1 piece	GPS power cable	optional
mount	1 piece	Rear view lens	Optional
Hardwire kit	optional		

## **Methods of pasting the static sticker:**

1. Spray a small amount of water on the place on your windscreen where the static sticker will be pasted, then use a dry towel to clean it;
2. Tear off the static sticker, and then paste it to the correct position.
3. After you have adjusted the location well, you can use a scratch board or a similar flat item to stick the static sticker in place and squeeze the water inside out until there is no bubbles or water between the static and the glass.
4. Then place the GPS/GPU mount onto the static sticker, then if you need to remove the bracket, it is easy, just remove the static sticker from windscreen.

# APPEARANCE



1. Bracket, double side tape stick on here
2. Micro USB port 1 (for power only)
3. Reset button
4. AV port for rear view camera
5. Micro SD card slot
6. MIC
7. Gestures Capture (Optional)
8. Menu
9. M button for playback/mute button: Long press and come into playback and short press will mute the sound when recording
10. Power on/off &OK button, short press for start and stop recording, long press for power off and it is ok button when setting menu.
11. Left and capture button.
12. Right /motion detection/SOS button,short press for motion detection when standby ,short press for SOS when recording

# SPECIFICATION

**Chipset :MSC8328P&MSC8328Q(MSTAR)**

**Image sensor :OV4689/GC2023**

**2inch TFT LCD screen**

**Resolution:**

Q8H	2560X1440 30fps	2304X1296 30fps
	1920*1080 30fps	1280*720 30fps
	1280*720 60fps	
Q8	2304X1296 30fps	1920*1080 30fps
	1280*720 30fps	1280*720 60fps
Q8s	1920*1080 30fps	1280*720 30fps
	1280*720 60fps	

**Built-in microphone / speaker**

**Support Wifi (Optional)**

**Built-in super capacitor**

**Support G-sensor file protection**

**Support SOS manual file protection**

**Support GPS trace logging**

**Support micro SD card up to 64GB**

**Support parking guard (with hardwire kit, optional)**

**Support Gestures Capture(Optional)**

## **Rear view camera (optional)**

1280\*720 25fps or VGA 640\*480 ,

120 degree of viewing angle,waterproof

Adjust the rear camera on the bracket to the best viewing angle.

Rear view camera can not support parking guard

Rear view camera for reversing light is 12v



# OPERATION

## Read this chapter to learn how to operate the camera

### Turn on / off camera

This camera does not have an internal battery, it utilizes a super capacitor, so it must be continually connected with the power supply when using.

When connected with the power source, the camera will automatically turn on.

If no power source, camera will automatically turn off very soon.

When the camera is recording or in standby, user can long press POWER button to turn off the camera.

### Recording Video

When the camera is in standby, short press OK button to start video recording; short press OK button again to cancel video recording.

The camera is also pre-configured to auto start recording once it receives power, i.e. when the car engine is started.

The camera is also pre-configured to auto stop recording and turn off once it loses power, i.e. when the car engine is stopped.

### Take Photo

When camera is recording, short press left/capture button or use gesture photography to take a photo

### Storage card preparation

The camera supports micro SD card up to 64GB maximum.

It is recommended to use high speed micro SD card to avoid storage problems.

Please format the SD card before recording.

It's suggested to format the card every two weeks to avoid file segments which may cause recording problem.

Please backup the important files before formatting.

### Recording Mute Video

When the camera is recording or in standby, you can short press M button to mute the microphone inside camera at any time; short press M button again to cancel mute status.

## **SOS Manual Protect Video**

The camera supports automatic loop recording which means the oldest video will be over-written by new video when the card is almost full unless the video is protected (read only file attribute).

The camera can auto protect videos if the G-sensor data exceeds the configured threshold.

You can also manually protect the videos by short press Right button (SOS) when recording, “Lock current file”, there will be one yellow lock on the left bottom of screen; press Right button again to cancel protected status, “unlock files”.

If any impact over the threshold value is detected, the current recording video will be locked automatically.

## **Videos and photos playback**

When camera is in standby, press M button to enter playback mode;

Short press MENU button and see Video Type, then press OK button to enter EMERGENCY/NORMAL / PARKING / PHOTO

short press OK button and M button to confirm the option, press M button to exit playback.

Videos / photos playback, there are three options:

Normal is for normal video

Parking : when motion detection is on , videos will be saved on this folder

Emergency is for Locked files

Photo

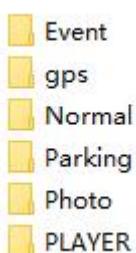
When playing videos on camera, you can short press right button to fast-forward the video,

Options: 2x / 4x/ 8x

Short press Menu button to enter Delete menu

## **Playback on computer**

When you wish to review the videos or photos on computer, a Micro SD card reader can be used , you can see folder as below,



**Event for locked videos**

**Normal for normal record videos**

**Parking : when motion detection is on , videos will be saved on this folder**

## **Light Indicator**

Blue blinking light: the camera is in normal recording mode.

## **Motion Detection**

1) Motion detection is not on the menu, only has hot key.

2) Motion detection is used to reduce the amount of storage space used.

When camera is in stanby mode, short press Right button, there will be a red eye on the screen, this means motion detection is on; short press Right button again to cancel it in standby mode.

When there is no obvious motion detected the camera will switch to sandby.

Once motion is detected above the threshold value, the camera will start recording and continue for 30 seconds after the motion stops.

Note: When car is parking and parking guard function is on, motion detect will be closed.

## **Super Capacitor**

The built-in super capacitor can provide several seconds working time for safe shutdown after power lose. The super capacitor will be recharged automatically once input power connected. Don't power on the camera without a external power supply.

# **Menu on the camera**

## **Resolution**

Here you can choose the video resolution you want to use; higher resolution videos will use more storage space.

Options:

### **Resolution:**

Q8H	2560X1440 30fps	2304X1296 30fps
	1920*1080 30fps	1280*720 30fps
	1280*720 60fps	

Q8	2304X1296 30fps	1920*1080 30fps
	1280*720 30fps	1280*720 60fps

Q8s	1920*1080 30fps	1280*720 30fps
	1280*720 60fps	

## **Quality**

Here you can adjust the video quality; the quality will affect video grain, sharpness, contrast and so on. Better quality videos will result in higher bit rate and use more storage space.

Options: Super Fine / Fine

### **Recycle**

This camera supports automatic loop recording when the card is full. Here you can set the segment length according to your requirement. If you need continuous video without any segmentation, please set it to OFF, however be aware that the maximum video file size is 4GB and the camera will stop recording once the card is full.

Options: 1 MIN / 3 MIN / 5 MIN / OFF

### **Beep Sound**

Here you can set the beep sound of the button.

Options: ON/OFF

### **Exposure Values (EV)**

Here you can manually adjust the Exposure Values (EV) to improve the image brightness.

Options: from -2 to +2

### **White Balance**

Here you can set the image white balance mode to improve color balance in videos / images for different weather and lighting conditions. Auto is recommended to fit most conditions.

Options: Auto / Daylight / Cloudy / Fluoresc. / Flouresc.1 / Flouresc.2 / Incandesc

### **ISO Sensitive**

Option: Auto / ISO100 / ISO200 / ISO400 / ISO800 / ISO1600

### **G-sensor Sensitive**

If any impact over the threshold value is detected. The current recording file will be locked / protected to avoid being over-written. Here you can define the sensitivity threshold value.

Options: High / Middle / Low / OFF

### **LDWS**

Options: OFF / ON

### **FCWS**

Options: OFF / ON

### **SAGS**

Options: OFF / ON

### **HDR**

Options: OFF/ON

### **Contrast & Sharpness**

Here you can adjust the video contrast & sharpness.

### **GPS Stamp(Optional )**

The camera can record your driving track and stamp the GPS data on video. Here you can define the GPS data stamping method. Please note there maybe electronic interference on GPS signal from camera, radar detector, wireless transmitter, hardwire kit, car charger, or other devices; which will delay the GPS connecting or create errors in the GPS data.

Options: OFF / ON

### **Speed Unit**

Options: KMH / MP

### **Speed Stamp**

Options: OFF / ON

### **Date Stamp**

Options: OFF / ON

### **Parking Mode (detail on “Parking guard” )**

Options: Time lapse / OFF / Normal

### **Support Gestures Capture(Optional)**

Options: OFF / ON

### **Driver Number**

Here you can define the driver number or your customized information to stamp on the video (9 letters or numbers).

### **Language**

Here you can set the language you prefer.

Options: English / 简体中文 / 繁體中文 / Р у с с к и й

### **Flicker**

Here you can set the sensor flicker frequency to fit your AC power frequency and reduce the effect of flickering lamps.

Options: 60hz / 50hz

### **Power OFF Screen**

If there is no button actions when the camera is on standby or recording, the screen will auto power off to save power, here you can define the power off screen delay time. You can press any button to turn on screen.

Options: off / 10s / 20s / 30s

Or you can short press POWER button to turn on/off screen.

### **Time Zone**

Please set the local time zone correctly to get the correct time from GPS satellites.

You may need to manually add or minus time zone value for daylight saving time, to display the correct time.

**For example: China adopts the GMT +8 time zone, set as GMT+08:00**

## **Power off temperature(Over temperature protection for parking guard(Optional))**

Because extreme temperatures will cause damage to the camera, the smart temperature adjustment within the camera will react when the parking guard function is in operation.

When inner temperature reaches the preset temperature, the camera will power off and stop record automatically.

The user can preset the over temperature protection within the menu using the “power off temperature”. Temperature can be preset from 60° C-85° C(140F-185F), default is 80° C(180F).

## **Time Setup**

Here you can set the system date and time manually. The date/time information will be automatically updated if GPS satellites are connected.

Format: Year Month Day Hour Minute Second

## **Format**

Before using, please format the cards in the camera or computer to avoid any unnecessary issues. all files will be lost once you start the formatting process.

After a period of time, we suggest users format the cards regularly.

(If you are using micro SD card larger than 32GB, please format the cards on a computer to be FAT32 format)

Options: NO/YES

## **Default Setting**

Here you can restore all the settings to the factory default settings.

Default setting in Menu, options: NO / YES

## **Version**

Here you can find the current version of the firmware (DVR & MCU) in your camera.

You may need this information when you are trying to upgrade the camera to a later firmware.

Update process: Make sure power is reliable ,better use provided car charge

1. Format the micro SD card.

2. Extract firmware DVR (BIN file) or MCU (IAP file) to the root folder of the micro SD card.

3. Insert micro SD card into camera and turn on the power, please make sure camera is

connected with the power during whole update process.

4. The camera will update automatically, no need any action.

Screen words shown as below:

1) Read File

2) Write Firmware

3) Write Done

5. The complete process will takes about several minutes.

6. Firmware will be deleted and camera will reboot after update sucessful.

# GPS (optional)

**A. How to use the built in GPS player in the firmware (Some model without GPS tracker function) for single lens :**  
**GPS is on the power cable .**  
**Using a Mirco SD card to read the card with video on computer**

-  Event
-  gps
-  Normal
-  Parking
-  Photo
-  PLAYER

Click “PLAYER” and see [txt file](#)  [Readme](#) ,Open it and choose the link to download the player and install.( GVplayer and QtPlayer )

if choose this player



just click it and download directly then install it.

**quicktime install**  
Brought to you by: yangguoke

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★ Add a Review  
↓ 2 Downloads (This Week)  
Last Update: 2016-08-25

sf **Download**  
quicktimeinstaller7.79.exe

Browse All Files

Choose green background “download” “

4. If your computer is already installed, click



## Player Icon





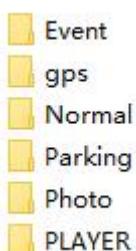
Remarks:

1. Macbook can not support this GPS player.
2. This player support google map.
3. “PARK” file are videos that when motion detection is on.

## B. How to use the built in GPS player in the firmware (Some model without GPS tracker function) for Dual lens :

GPS is on the power cable .

Using a Mirco SD card to read the card with video on computer



Click ““PLAYER” and get the link on the file “read me” to download “ GVPlayerDualEn” and install it.

## Player Icon:



Remark:

1. Macbook can not support this GPS player.
2. This player support google map.
3. “PARK” file are videos that when motion detection is on.

**PARKING GUARD (optional,Rear camera can not support parking guard function, only front camera support it.)**

1. When using Parking Guard Function, only use the hardwire kit to get power from the car battery.

Input voltage is DC12-30V ,Output voltage is DC5V,1.0A

Three wires : ACC , GND,VDD



**Note: This hard wire kit is not plug and use , if can not install ,please come to car shop for professional installation**

Please note that you can not use car charger for parking guard function.

Remove the car charger when using parking guard function.

2. When use the hardwire kit to get power from car battery, built-in CPU will auto-detect whether the car engine is started or off. If the car engine is detected, the camera will start recording. If the car engine is off, the camera will record 1mins video and then stop recording and come into parking mode?

3. if the car engine is stopped, the camera will be in Parking Guard modes, there are 3 modes in this status, user can choose one of them:

A: OFF.

Choose OFF, when car engine is stopped, there will be “ACC OFF” words on the camera screen , the camera will record 1 minute video and then turn off, it will not record anything even unexpected shocks or collision happen.

B: Time Lapse

Choose Time Lapse, when car engine is stopped, there will be “ACC OFF” words on the camera screen, the camera will record 1 minute normal fps video, then will start loop recording in low FPS status (1 fps/second video) when parking.

C: Normal

Choose Normal, when car engine is stopped, there will be “ACC OFF” words on the camera screen, the camera will record 1 minute video and then turn off. it will start 1 minute video record when unexpected shocks or collision happen, then turn off again.

## **4. Default lowest voltage of car engine starting is 11.5V**

If car battery voltage falls below 11.5V, camera cannot receive power from the car battery and camera will be turned off automatically, Parking Guard function will not work at the same time, to ensure the car engine will start normally.

## **5. Over temperature protection for parking guard.**

Because extreme temperatures will cause damage to the camera, the smart temperature adjustment within the camera will react when the parking guard function is in operation.

When inner temperature reaches the preset temperature, the camera will power off and stop record automatically.

The user can preset the over temperature protection within the menu using the “power off temperature”. Temperature can be preset from 60° C-85° C(140F-185F), default is 80° C(180F).

## **POWER SOURCE**

The camera can be powered by power lead for cigar lighter socket (standard accessory), or hardwire kit (optional accessory).

1. Power lead for cigar lighter socket is an easy and fast connecting method for camera, user only needs to plug the power lead into the cigar socket in the car. The camera will be powered once the engine is started. The disadvantage of power lead for cigar lighter socket is it will occupy your cigar lighter socket and may create alignment difficulty for the long cable.
2. Camera can get power from car battery via hardwire kit.

## **MOUNTING**

The camera is designed for easy & quick mounting to your windshield with the VHB sticker pad.

1<sub>st</sub>, mount the camera to the mounting bracket with power cable plugged into either the mount or camera body;

2<sub>nd</sub>, simulate the unit on your windshield with the camera powered on, rotate the camera vertically to find the best mounting location;

3rd, clean and dry your windshield, put the film on it. Stick the VHB sticker pad

to the mount bracket, and attach it to the film to your windshield, hold the mount for a few seconds to ensure good adhesion;

4<sup>th</sup>, power on the camera and check the camera display again.

When you want to demount the camera, just slide the camera out from the mounting bracket; no need to take the mounting bracket down.

If you want to change the location, just remove the film, take the camera and bracket down, it is very convenient.

Please don't break off the mount bracket from windshield with a rigid crowbar, this may damage the mount bracket or your windshield.

The recommended mounting location for camera is at the center of the windshield, just behind the rear view mirror. That is the most invisible location to hide the camera, and will not interrupt you when driving.

## PC SYSTEM REQUIREMENTS

Windows XP or later operating system

Intel Pentium 4 2.8Ghz CPU or above (recommended 3Ghz)

At least 2GB RAM or above (recommended 4GB)

Internet connection (for GPS log playback)

# WIFI APP Operation Guide



Enter setting interface ,open wifi and connect camera's wifi "CarDV\_WIFI" (The initial password is 1234567890)

1. After WIFI is connected , you can do the setting as below:

No SIM

17:51



Preview



CarDV\_WIFI



0:00



Front and rear cam switch



Start to record



Playback



Menu setting



look file



Open/mute the MIC



Capture



Zoom preview



download

## Menu



Videos

1296P30



WiFi : CarDV\_WIFI



RECYCLE

1MIN



DVR VERSION : 20171016



GESTURES CAPTURE



APP VERSION: 1.2



G-SENSOR SENSITIMEVEL1



LDWS



FCWS



SAGS



TIME SYNCHRONIZATION

FORMAT

DEFAULT SETTING

GPS track download

## Playback



files for pictures



files for video



files for emergency



file for motion detection



switch to front or rear



delete



Stop downloading



download

## Installation Guide

Put the sticker on back of the bracket and then fix back of camera and then install to the windshield , It is better to fix it on back of the rear view mirror .

The distance between user and device should be no less than 20cm



## TROUBLE SHOOTING

- Cannot record video or take picture

Please check that there is enough storage space on the micro SD card. Or if you have Loop Recording on that the files are not all protected (read only attribute).

- camera stops recording occasionally

Because the data stream of high-definition video is huge, please use a high-speed Class 6 or Class 10 micro SD card that compatible with SDHC. It's recommended to check your micro SD card with H2TESTW program to make sure the card is genuine.

- “File Error” prompt while playback the video or image

Corrupt data storage results the file error, please use the “FORMAT CARD” menu to format the micro SD card.

● Image is blurred

Maybe the lens or windshield is not clean; please check if there is dust, fingerprint, or something else on the lenses. Use lenses cleaner to clean the lenses before using. Please remember to remove the lens protecting film before first use.

● Image has horizontal stripes interference

This is due to the wrong setting of “Flicker”, please adjust it depending the local power supply frequency, and reset the Flicker: 50Hz / 60Hz

● Camera doesn’t auto start recording when the car engine is started.

Please make sure the Movie Clip Time is 1 / 3 / 5 minutes, not OFF, it will not auto start recording when Movie Clip Time is OFF if the card is full.

● The camera continues automatic recording and won’t stop

Maybe the camera is working on Motion Detect mode; you can check whether there is an red eye icon on the screen. When the Motion Detection is ON, it will auto start recording when a moving object appears within the range of camera. When the motion ceases, the recording will stop automatically until a moving object appears again. It is not easy to turn Motion Detection function off with the camera in hands.

● The camera is suddenly turned off

Turn on again the camera, connect with the power.

● Memory card can not be used

Remove the memory card or use another memory card.

Or format the memory card, before formatting; make sure to backup files first.

● Power indicator doesn’t work

Please check the power line OK or not.

● Camera is functioning or frozen

Unplug the power cable to turn off the camera and replug it.

For more questions, please contact seller.

### **About the Manual**

We have tried to ensure that what is in this manual is correct and up to date. However, we can not guarantee that all content is correct without any errors. If there is a variance between the manual and camera, please accept the camera standard as correct. We reserve the right to change content or technical regulations without informing you prior to making any changes. In addition, the manufacturer reserves the right to change technical specification without informing you prior to making any changes. If the accessories listed differ from the ones included with the actual product, please accept the actual product as standard and correct.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The distance between user and device should be no less than 20cm