Please read through this user manual before using the product and keep the manual for future use. This manual is for reference use, any later alteration of technical specification and product appearance are without further notice.
Precaution

Pls be well noted with the following guidelines before you use this camera,

* Pls refer to manual instruction and operate the camera correctly. Illega" operation may cause damage to camera internal components.
* Do not fall or hit the camera, it may damage the internal components.
* Do not open the battery cover when recording. Otherwise not only it is unable to save the current video recording document, also possibly damages other video recording documents which already have stored.
* Make sure install the battery correctly, the error direction of batteries may cause damage to this cam and cause the fire.
* For your safety, please keep the camera from the children and animals, in order to avoid accident.
* Do not place the camera in a damp or dusty location for extended periods of time. This may cause a fire or an electrical shock.
* Do not leave the camera in places exposed to extremely high temperatures, such as under direct sunlight for extended periods of time. This may affect the camera housing and internal components.
* Do not burn the battery or drop it into the fire.
* Do not make the battery short circuit; do not make any metal touch the battery end.
* We recommend using batteries in temperatures between 0°C to 40°C.
* Turn off the camera before removing the batteries and the memory card. The card and the data may be damaged if the memory card is inserted or removed while the camera is still on.
* Remove the batteries before storing the camera for long periods of time, to avoid power loss and camera damage.
* The camera is waterproof. Do not alter or dismantle the camera, if this causes the damage to the camera and non-watertight, which is not covered by the warranty.
* The temperature rise is normal when digital cameras in use for a long time.
* Do not touch the lens when use the camera, so as not to influence the photography effect.
* Please use the air blower (special lens blowing equipment) to clean lens or use special lens-cleaning cloth to clean fingerprint or dust on the surface.
**Accessories**

1. Goggle velcro strap
2. Velcro
3. USB cable
4. TV cable
5. HDMI cable
6. Microphone
7. Battery
8. Charger
9. Car Charger
10. User manual
11. Velcro strap
12. Handlebar grip
13. Suction cup Bracket
14. Multi-use Bracket
15. 3M Pad

**Interface Introduction**

1. Lens
2. REC key
3. Power key
4. Mode key
5. LCD screen
6. Menu key
7. Left key
8. Confirm key
9. Right key
10. Speaker
11. Radiating screw
12. Microphone
13. TV port
14. Working/Charge indicator
15. MIC IN port
16. Battery cover knob
17. Battery cover
18. SD slot
19. HDMI port
20. Car Charger
21. USB port
Mounting Description

The camera can be mounted in a number of ways. Please follow the methods of mounting as suggested below:

1. Mount the Multi-use bracket
   Mount the multi-use bracket into the hole in the bottom of the camera, and slide to back to make sure it is tight. (Picture 1, 2)

2. Mount the camera to the helmet using the multi-use bracket
   1) Follow the above methods to mount the multi-use bracket to the camera, and thread the Velcro strap through the helmet grip. (Picture 1, 2)
   2) Thread the Velcro strap through the helmet twice (Picture 1, 2), then thread into the buckle to fasten it. (Picture 3, 4)

3. Mount the camera to the car using Suction Cup Bracket
   1) Mount the suction cup bracket into the hole on the side of the multi-use bracket, and slide to back to make sure it is tight. (Picture 1.2)
   2) Fix the camera on the car windshield, and then twist anticlockwise the buckle to make sure it is tight. (Picture 1, 2)

Note: You can install the camera on the dashboard (Attach 3M pad to the camera to help fix it).

4. Mount the camera to the motor using handlebar grip
   1) Screw out the screw in the handlebar grip. (Picture 1)
   2) Put the “Part 1” into the nut of the camera and twist it (Picture 1) and put the “Part 1” into the handlebar grip then fix and screw it up. (Picture 2)
   3) Put the rubber pad into the handlebar grip (Picture 1), and mount the handlebar grip to the motor handle, then twist the screw up. (Picture 2, 3)
Mounting Description

Install and take out battery
Please use the appropriate lithium-ion battery (above 3.7V 1800mAH), any inferior batteries will severely damage the camera.
1) Open the back cover.
2) Open the battery slot door according to the direction of arrow.
3) Insert battery into the battery slot according to the polarity direction as shown on the battery cover.
4) Close the battery slot door and twist the clasp according to the reverse direction of arrow.
5) Unscrew the cover at the end of the unit and open the battery slot door, according to the direction of arrow (to the right), turn the knob to open the battery cover, and take out the battery.

Insert and take out storage card
1) Insert storage card
1) Open the camera back cover
2) Insert the card according to the direction as show
3) Close the cover

2) Take out the storage card
1) Turn off the camera and open the back cover.
2) Press the end of the storage card slightly, it will automatically eject.
3) Close the cover
Notice:
  a) Before using the SD card, please check whether the key lock on it is locked;
  b) Please confirm the inserting direction of the SD card because reversed inserting may cause damage to the camera and the SD card;

Battery charging
Install the battery into the battery slot according to the above methods and close the cover, then connect the charger to the USB port and plug in the power. During charging, the red indicator on, when fully charged, the indicator off.

Notice:
  a) In order to improve the charging efficiency, please charge the camera under the shutdown status. (charging time is about 3hrs)
  b) Please make sure the AC power is turned on when the charger is plugged.

Function description

Button Function Description

REC key: Taking video or stop; taking photos; under playback mode to enter every frame playback; under browse mode to enter delete menu.

key: to turn on/off the camera; to clear screen

MODE key: to switch to video mode and camera mode; during video recording to take snap shot.

key: to switch to movie mode, photo mode and setting mode; under play movie mode to quit playing; under photo mode to quit browsing.

key: to zoom out the image; to select the last file or menu.

key: to playback videos and to pause; under setting mode to enter and confirm setting; under each frame playback mode to exit playback.

key: to zoom in the image; to select the next file and the next menu.
Operation description

Basic operation
1. Turn on/off the camera
   a. Turn on the camera
      Press once (key, you will hear beeping sounds, the working blue indicator light up. It enters into standby mode; the resolution displayed on up left corner of LCD screen, the time displayed on LCD screen is remaining time, on the up right corner shows the battery icon.
   b. Turn off the camera
      When the camera is on, press and hold (Key for 3 seconds, it will turn off (you will hear beep sound).

2. Photo Inversion
   Under standby mode, invert the camera, the image showed in the screen would be upward automatically, then press (key to take videos, press (key again to stop recording, it will save the videos automatically.
   Notice: while recording, do not invert the camera, otherwise the video recorded is downward.

3. Taking video footage
   a. Set the Loop recording to “NO” (refer to the menu setting), press once (key to take video(you will hear beep sound), the blue indicator flickers, the recorded time and video icon displayed on LCD screen, press (key again to stop and save the video files, the remaining time displayed on LCD screen.
   b. It can record the audio by camera built in microphone automatically, also it can be plugged in an external microphone to record audio nearby or within one meter.
   Notice: When recording, there is no self capture function.

2) Loop recording
   a. Set the record overwrite time say for 2 mins for example (pls refer to menu setting), the DVR enters loop recording mode, press (key to start recording (you can see “C” icon in the screen), when records to 2 mins (according to the time you set), DVR will stop recording automatically and save the video, then continue recording; When SD card is full, DVR will delete the first video footage automatically and continue recording.
   b. During recording, press (key to stop and save the video, the remaining time will display on the LCD screen.

3) Motion Detection
   Set Motion Detection say for 30 SEC.(can set different time, pls refer to menu setting), and exits, “REC KEY TO DO MOTION DETECTING” showed in the screen, press once (key to record. If no object is moving, it will stop recording automatically after 30 SEC., If there is always object moving, it will detect the object circularly according to the time you set.

Operation description

4. Capture/Snap Shot
   During video recording or playback, press (key to capture image.
   (Note: When capture the image, the video recording is continuous processing, you can check the capture images only under browse mode.)

5. Take photo
   1) Normal shooting
      Under camera mode, aim at the object you want to shoot and press (key, it will save the photo automatically.
   2) Self capture
      Under camera mode, press (key three times to enter system setting, press (key to select “self capture” (time is optional), confirm and exit, press (key, the camera will take and save photos automatically every the times you set.
      Notice: Set “self capture” as “NO” to stop self capture and return to normal shooting.
      Memo: Do not move the camera when taking pictures; otherwise it may affect the photo effect.

6. Zoom in/out
   Under standby mode, press (key to zoom in/out the image.
   Note: Under FULL HD(30fps), FULL HD (25fps), 720P (50fps) mode, there is no zoom in/out functions.

7. Clear Screen
   Under standby mode, press (key to clear all characters appears on screen.
   Press (key again, the characters will reappear.

8. Browse mode
   1) Check movies
      a) Turn on the camera, press once (key to enter movie mode, press (key to select the preview videos, press (key twice to play; While playing, press (key to pause, press again to continue.
      b) When playing, long press and hold (key to fast forwards playback, loosen (key to return to normal playback; long press and hold (key to fast reverse playback, loosen (key to return to normal playback; Press (key to pause, press (key to again continue.
      c) When playing, Press (key to turn down the volume; Press (key to turn up the volume.
      d) When playing, press once (key to enter every frame playback mode, press once (key to playback every frame, press once (key to play backward every frame. Press (key to quit and return the normal playback mode.
      e) Press (key to quit the camera mode.
   2) Check photos
      a) Turn on the camera, press twice (key to enter camera mode, press (key to select the preview pictures, press (key to check photos;
      b) When check photos, press once (key to enter Slide mode, press again (key to quit.
      c) Press (key twice to quit camera mode and convert to setting mode.
   3) Delete File
      Under browse mode, press (key to enter delete mode, press (key to select “ALL, YES, NO”, and press (key to confirm. Select “YES” to delete one file, then press (key to confirm; when select “ALL”, press (key to confirm “YES” or “NO”, then press (key to select “YES”, press (key to delete all files; select “NO”, press (key to exit delete mode.
## Operation description

9. System Setting

Turn the camera on, press [Menu] key three times to enter setting mode, press ◄/► key to select, and press [OK] key to confirm. Press [OK] key reverse to setting mode.

Resolution: FULLHD30/FULLHD25/1080P30/1080P25/720P60/720P50 /720P30/720P25/WVGA60/ WVGA30

Size: 3M/5M/8M/12M/16M

Record overwrite: NO/2 mins/5 mins/15 mins

Motion Detection: NO/30s/1 min/3 mins/5 mins

Language: English/Deutsch/Francais/Italiano/Espanol/CHS (simplified)

/ CH (traditional)/ РУССКИЯ.

Quality: H/M/L

Time setup: YY/MM/DD/HH/MM (refer to the current time)

Time Stamp: OFF, DATE, TIME, DATE/TIME

Flicker: Auto/60 Hz/50 Hz

TV type: NTSC/PAL

White Balance: Auto/Sunny/Cloudy/Incandescent/Fluorescent

EV Setting: EV-2.1/EV-1.7/EV-1.3/EV-1.0/EV-0.7/EV-0.3/EV0.0/EV+0.3

/ EV+0.7/EV+1.0/EV+1.3/EV+1.7/EV+2.0.

Contrast: standard/hard/soft

Sharpness: standard/hard/soft

ISO: Auto/100/200/400

Volume: NO/16/15/14/13/12/11/10/9/8/7/6/5/4/3/2/1

Beep Sound: On/Off

Default Setting: NO/Yes

Format: Yes/No

Auto power off: 1 min/2 min/3 min/5 min/60 min/120 min/180 min/300 min/360 min

Auto LCD off: OFF/30sec/60sec

Default setting: NO/YES

Auto capture: OFF/3secs/5secs/10secs/30secs/60secs

Firmware Version: FW Ver: 1.15/20111025

### Troubleshooting

#### Play back video footage on TV

1. TV OUT mode

   Connect camera to TV video input port and audio input port of with the TV OUT cable provided. Choose AV mode on TV, the LCD screen of camera will be off automatically, all operation functions can be shown on TV.

2. HDMI mode

   Turn the camera on, connect camera to HD TV video input port and audio input port of with the HDMI cable provided. Choose HDMI mode on TV, the LCD screen of camera will be off automatically, all operation functions can be shown on TV.

#### PC Mode

Turn the camera on, connect camera to computer with USB cable. Open "My computer", appears a removable Disk, open the Disk, DCIM file, 100MEDIA file in turn, and you can playback your videos or pictures, also can download your pictures and your videos in MOV/JPEG format.