

USER MANUAL

XW2

For the use of the XMOTION (used for manufacturer and all authorized XMOTION distributors and sellers) dashcam device.

Read this manual carefully before using this device. This manual may be modified supplemented without any notice.

XMOTION is an auxiliary device for recording while driving and parking. Use this device for intended purposes only.

This device records and saves videos of significant incidents, but may not capture certain events due to the operating environment. This device is not guaranteed to record all incidents. Use the device only for reference purposes.

Recordings will not be saved while the device is booting. To ensure proper recording, turn on the device and wait until the device is fully booted before operating.

01_DEVICE INSTALLATION AND MAINTENANCE

- The device's firmware and dedicated viewer may be changed without prior notice in order to enhance product performance or viewing quality.
- Extended periods of recording in parking mode may result in vehicle battery drainage. Switch the device off before long time parking.
- This device is powered through the vehicle's auxiliary power socket or by hardwiring to the vehicle's fuse box. Incomplete or improper connection to the power source may cause malfunction or fire. XMOTION is not responsible for any problems caused by hardwiring.
- For hybrid vehicles, connect car charger to the vehicle's auxiliary power socket. Note that hybrid vehicle is more susceptible than non-hybrid vehicle in battery discharge or fire. XMOTION is not responsible for any problems caused by hardwiring the device to the vehicle.
- Full recording functionality or video quality may be affected by driving and weather conditions including extreme dark/light such as when entering/exiting a tunnel or parking garage. Video may be blurry or distorted in vehicles with excessively tinted glass.
- The optimal temperature for device operation is -4 ~ +158 °F (-20 ~ +70 °C). Maintain optimal temperature to avoid malfunction.
- Do not park in or expose to direct sunlight for extended periods of time to avoid malfunction or breakdown.

- Do not use the device in high temperature or high humidity environments. This device is not waterproof. Exposure to liquids or foreign substances may cause malfunction, short circuit, and/or fire.
- Use only genuine accessories and peripherals authorized by XMOTION. XMOTION does not guarantee the safety or compatibility of accessories or peripherals not approved by XMOTION, and any damage or malfunction as a result of such use will not be covered by any warranty.
- Do not operate the device while driving. Operating the device while driving may result in accidents. Park the vehicle in a safe place before operating the device.
- To avoid electric shock, do not operate or handle the power cable with wet hands.
- To avoid fire or electric shock, do not use a cut or damaged power cable.
- Modifying or cutting power cables may lead to damage to the device or the vehicle. XMOTION is not responsible for any damage caused by cut or modified power cables.
- Do not mount the device in an area that blocks or obscures the driver's view as this may result in an accident.
- Do not disassemble, repair or modify the device. Contact the seller for repairs. Any attempt to disassemble, repair or modify the device will result in the cancellation of any warranty.
- Do not clean the device with chemicals or detergents. This may result in discoloration, cracking, or malfunction of the device. Gently clean using a soft and dry cloth. Ensure the device is clean at all times.
- Do not expose the device to direct impact, and prevent foreign substances from entering the device.
- XMOTION is not responsible for any damage to the device or any damage or injury caused by user's negligence or from the device's operation while driving.
- The device's Low Battery Prevention (LBP) function may cause the vehicle's battery to discharge depending on the condition of the battery. XMOTION is not responsible for vehicle battery discharge, fire or other vehicle battery problems.
- To avoid vehicle battery discharge or fire, disconnect the power cable from the device if the device will not be used for an extended period. XMOTION is not responsible for any damage to the device or vehicle caused by leaving the power cable connected to the device for extended periods.

02_SCOPE OF WARRANTY AND RESPONSIBILITY

- Images and recordings captured on this device may be used to assist in determining the circumstances of an accident. XMOTION is not responsible for any profit or loss arising out of any accident (lost money, business losses, or other indirect damage).
- This device records and saves videos of significant incidents in the Driving Events folder but may not register minor events that do not activate the impact detection sensor as Driving Events.
- XMOTION is not responsible for any problems that arise due to use of the device in a contrary way to the manual.

03_MICRO SD CARD

- The Micro SD Card is under a 6-month warranty from the date of purchase. After the warranty period, any replacement SD cards must be purchased.
- The Micro SD Card is re-writable. However, repetitive writing and deleting may cause damage to the Micro SD Card as well as to any stored files. Format the Micro SD Card at least two times each month to prevent damage, and replace the Micro SD Card with a new card once every 6 months, as data storage performance may decline after extended use.
- The life of the Micro SD Card depends on the conditions of use and may be significantly shortened when the device is hardwired to the vehicle for the parking mode.
- Use only Micro SD Cards supplied by XMOTION. XMOTION is not responsible for any problems caused by using Micro SD Cards not supplied by XMOTION.
- Always turn the device off before removing the Micro SD Card. Failure to turn the device off before removing the Micro SD Card may cause data deletion, malfunction or operational errors.
- If an accident occurs, turn the device off before ejecting the Micro SD Card. Failure to turn off the device before ejecting the Micro SD Card may result in deleted or compromised data or recordings. XMOTION is not responsible for deleted or overwritten data as a result of failure to properly eject the Micro SD Card.
- Use of the Micro SD Card in a smart phone is not recommended. If the Micro SD Card is used in a smart phone or for other purposes, be sure to format the Micro SD card on a computer before it is used in the device.

04_ WHAT'S INCLUDED AND OPTIONAL ACCESSORIES

The basic package and optional accessories are subject to change without prior notice in order to improve quality or performance. Either a power cable or car charger is included in each package.

In the Package

			
Main (front) camera device	Rear camera device	Hardwiring power cable	
			
Micro SD Card with adapter	Mount with 3M adhesive	Rear camera cable	Quick Start Guide/ Warranty/ User Manual

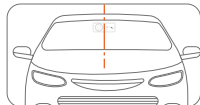
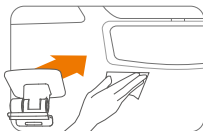
Optional Accessories

	
Car charger	GPS Antenna

05_INSTALLATION GUIDE

Install the Mount

- 1** Clean the area on the windshield where the device will be installed.
- 2** Remove the film from the adhesive tab of the mount.
- 3** Attach the adhesive side of the mount to the windshield in an area that allows the device an unobstructed view of the road, but does not interfere with the driver's view.

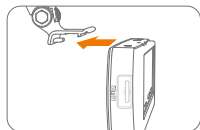


TIP

The camera is located on the left side of the main unit so install the device slightly right of center behind the rearview mirror.

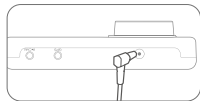
Attach the Device

- 1** Align the notch in front of the device with the tab on the mount.
- 2** Tilt the device upward until it snaps into the mount.



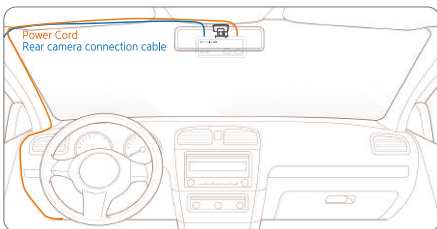
Connect to Power

- 1** Connect the power cable to the DC-IN socket of the device.
- 2** Plug the car charger adapter end of the power cable into the auxiliary power socket.
- 3** The device should be facing forward and be level with the vehicle and the road. Adjust angle by using the plastic roller screw.
- 4** Hide the power cable by tucking it in the space between the windshield and headliner.

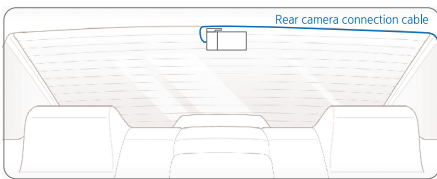


For 2-Channel only

< Front Camera >

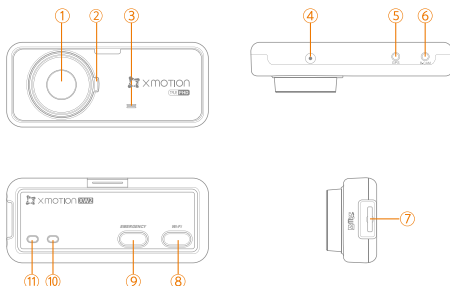


< Rear Camera >



- 1** Clean the area on the rear windshield where the device will be installed.
- 2** Remove the film from the adhesive portion of the mount.
- 3** Attach the adhesive side of the mount to the rear windshield in an area that allows the device an unobstructed view of the road, but does not interfere with the driver's view.
- 4** Attach the rear camera to the rear mount and adjust the camera angle so it is level with the vehicle and the road.
- 5** Connect the front camera ("R CAM" port) and the rear camera using the rear camera connection cable.
- 6** Hide the rear power cable by tucking it in the space between the rubber window sealing and/or molding.

06_DEVICE COMPONENTS



①	Front lens	⑦	Micro SD Card slot
②	Security LED	⑧	Wi-Fi on/off button
③	Speaker	⑨	Manual recording button & MIC on/off button*
④	Power connection		
⑤	GPS connection	⑩	Wi-Fi LED
⑥	Rear camera connection	⑪	Status LED

* **Short press** : Manual recording button

Press and hold : Toggle between MIC on and off

07_MAIN FUNCTION

Night Vision

Advanced image processing technology provides enhanced visibility in dark and low-light environments such as in parking garages, tunnels and at night.

ADAS: State-of-the-art safe driving support system

Advanced Driver Assistance System (ADAS) detects danger in various operating environments and helps to prevent accidents.

FVSA (Front Vehicle Start Alarm), LDWS (Lane departure Warning System)

Format free

Advanced format free technology (FFT) and serial encoding allow for maximum Micro SD Card file stability and long-lasting storage.

Supercapacitor

The supercapacitor is used to safely store and save video files during a sudden power failure.

Smart parking impact notification

Upon starting the vehicle's ignition, the device's screen turns on and displays the number of motion detection and impact detection events that occurred during parking recording.

Auto Overwrite

When memory is full, the automatic deletion function is activated and overwrites older files to allow for continuous storage of new videos.

Driving Recording

Continuously records video while vehicle is running.

Parking Mode

The device must be hardwired to enable parking mode recording. In parking mode, the device's impact and motion detection functions are activated, but driving recording is turned off. Parking mode is initiated around 10 seconds after the vehicle's engine is shut off. Parking mode recording commences upon impact or motion detection. The device's Low Battery Prevention (LBP) function prevents vehicle battery discharge when battery power drops below a user-defined level. Specify desired battery level or set timer in Settings.

08_LED LIGHT INDICATORS

LED Location	Color	Recording signal	Event signal
Front - Security LED	BLUE	Flashing slowly (Every 2 Sec)	Flashing rapidly (Every 1/4 sec)
Rear - Status Indication LED	RED		

09_RECORDING & PLAYBACK

Recorded video files may be viewed on a generic file player or the XMOTION PC viewer or on the device's screen without file conversion.

The files on the Micro SD Card may be viewed by connecting the card to your computer.

For 2-channel devices only : The device combines front and rear video recordings into a single file for simultaneous front and rear playback on the XMOTION PC Viewer or the VLC Player.

File Folder



Driving



Driving Impact



Parking



Parking Impact

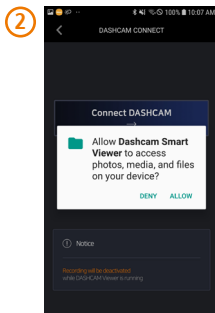
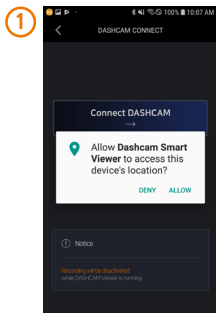


Parking Motion

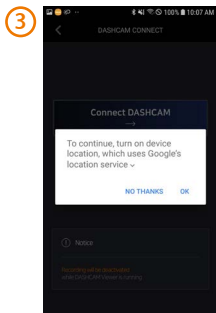
Folder	File
Driving	Driving recording (Driving mode)
Driving Impact	(Impact, Manual) recording (Driving mode)
Parking	Parking mode recording (Time lapse)
Parking Impact	Impact recording (Parking mode)
Parking Motion	Motion recording (Parking mode)

10_ MOBILE APP

REQUEST AUTHORIZATION

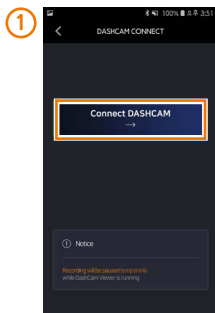


The request appears after the initial installation and it needs to be accepted. (GPS and storage)

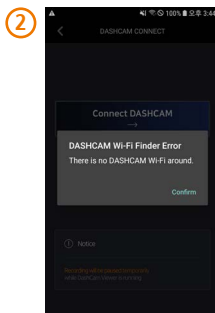


It will not run properly when the GPS is turned off.

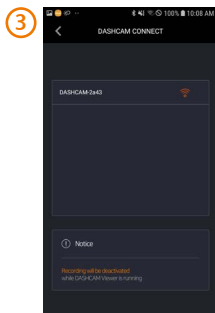
WI-FI CONNECTION



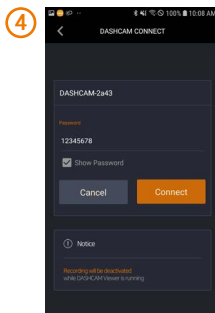
Touch the “Connect DASHCAM” button.



If there is no DASHCAM Wi-Fi, push the Wi-Fi button on the device to activate Wi-Fi.

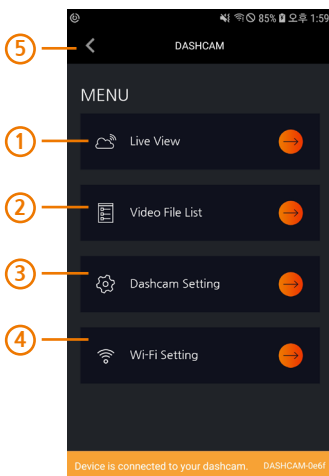


Select DASHCAM-xxxx on the list.



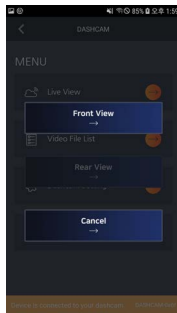
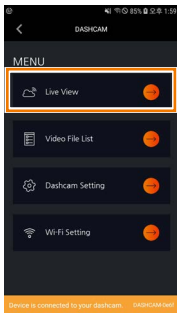
Write the password and connect.
Initial password : 12345678

MAIN MENU



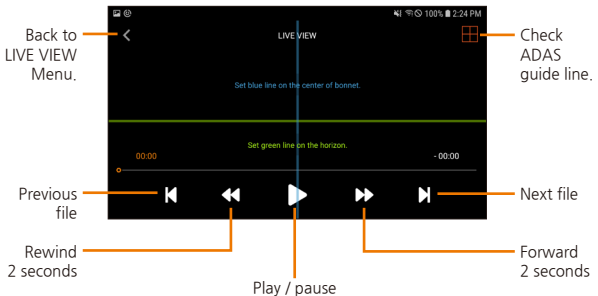
①	LIVE VIEW : Check live video on time.
②	Video File List : Check the list of recorded video files.
③	Dashcam Setting : Change the device settings.
④	Wi-Fi Setting : Change Wi-Fi settings.
⑤	Back button to the Main Menu .

Live View

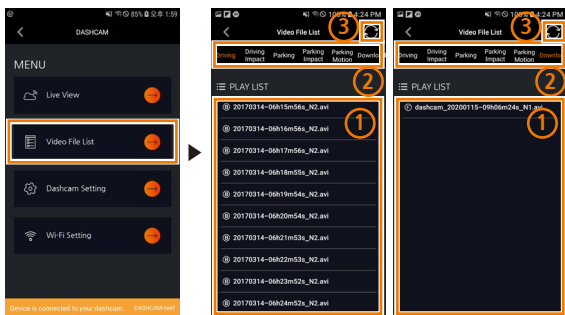


If rear camera is not connected properly, the rear view would not work.

- **Front View** : Check live view of front camera.
- **Rear View** : Check live view of rear camera.
- **Cancel** : Back to Main Menu.

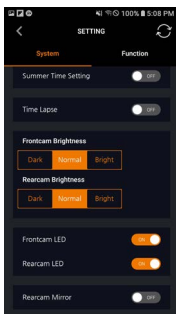
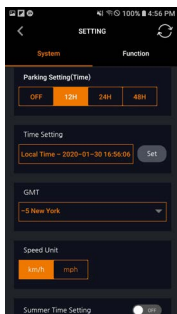
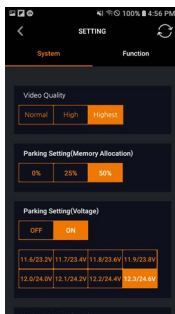
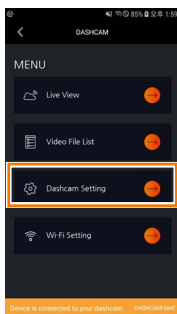


Video File List



- | | |
|---|--|
| ① | Check recorded video files : Touch the file to download or play. |
| ② | Choose a recording type : Driving, Driving Impact, Parking, Parking Impact, Parking Motion, Download. |
| ③ | Refresh the list from the dash cam. |

Dashcam Setting > System

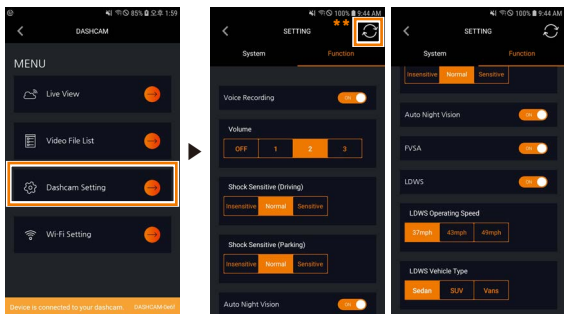


- **Video Quality Setting** : Normal / High / Highest**
- **Parking SD Capacity**** : 0% / 25% / 50%
 - Allocate memory capacity between driving and parking recording storage folder.
- **Parking Setting (Voltage)*** : OFF, 11.6/23.2V, 11.7/23.4V, 11.8/23.6V, 11.9/23.8V, 12.0/24.0V, 12.1/24.2V, 12.2/24.4V, 12.3/24.6V
 - The device will be shutdown once battery voltage reaches preset level.
- **Parking Setting (Time)*** : OFF / 12H / 24H / 48H
 - The device will be shutdown after the preset parking time.
- **Time Setting****
- **GMT Setting**
- **Speed Unit** : km/h / mph
- **Summer time Setting**** : ON / OFF
- **Time Lapse** : ON / OFF**
 - Continuously records at 1 FPS.
- **Frontcam Brightness** : Dark / Normal / Bright
- **Rearcam Brightness** : Dark / Normal / Bright
- **Frontcam LED** : OFF / ON
- **Rearcam LED** : OFF / ON
- **Rearcam Mirror** : OFF / ON

<*> The function is to prevent battery discharge.

<*> Be aware that the device will be rebooted after SD card format, once the setting is changed.

Dashcam Setting > Function

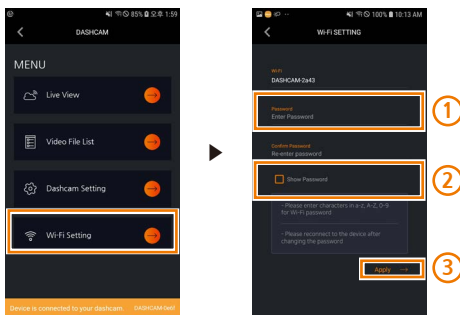


- **Voice Recording** : ON / OFF
- **Volume Setting** : OFF / 1 / 2 / 3
- **Shock Sensitive (Driving)** : Insensitive / Normal / Sensitive
- **Shock Sensitive (Parking)** : Insensitive / Normal / Sensitive
- **Auto Night Vision*** : ON / OFF
- **FVSA** : ON / OFF
- **LDWS** : ON / OFF
- **LDWS Operating Speed** : 60km/h / 70km/h / 80km/h
- **LDWS Vehicle Type** : Sedan / SUV / Vans

<*> Change the option will reboot the Dashcam.

<*> Reset button : Change setting to default (Dashcam can be formatted).

Wi-Fi Setting



- ① Enter Wi-Fi password to set.
- ② Check to show password.
- ③ Click apply to change the setting.

11_PC VIEWER

PC Viewer Program Installation

- 1 Click "setup.exe" or run downloaded installation file.
- 2 Click the shortcut icon on desktop to launch the viewer.

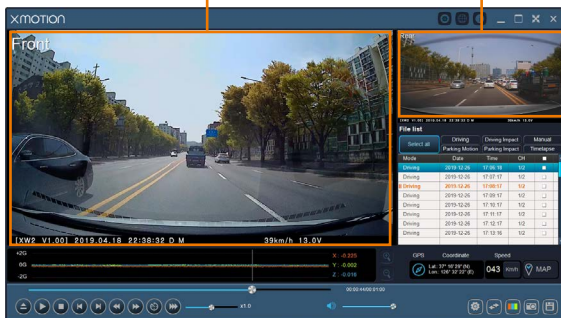
Playback

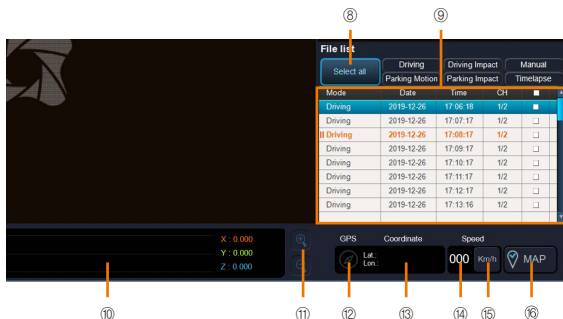
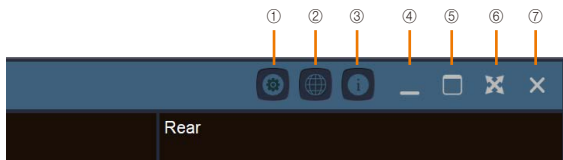
- 1  Click the button. Select a drive or a folder.
- 2 Select the file you would like to play.
- 3 Double click the list or click the  Play button.

PC viewer guide

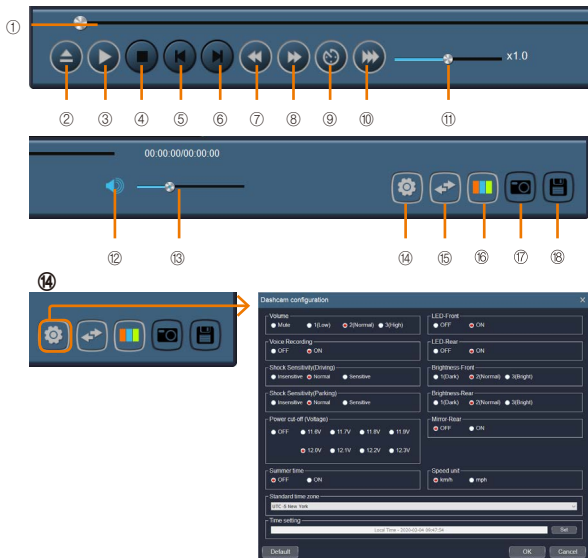
Front recording video

Rear recording video





①	PC viewer configuration	⑨	File list
②	Select a language	⑩	G-Sensor graph
③	Program information	⑪	G-Sensor graph Zoom in /out
④	Minimize the window	⑫	GPS connectivity status
⑤	Maximize the window	⑬	Coordinates(Latitude/Longitude)
⑥	Full screen	⑭	Driving speed
⑦	Close	⑮	Unit of speed (Km or Mi)
⑧	Select a recording mode or all	⑯	Map display



①	Play-bar	⑩	Default playback speed
②	Select a file or folder to open	⑪	Playback speed (x0.5 ~ x2)
③	Play or pause	⑫	Mute
④	Stop playing	⑬	Audio volume
⑤	1 Sec skip back	⑭	Dashcam configuration
⑥	1 Sec skip forward	⑮	Switch display channels
⑦	Move to the previous file	⑯	Video control
⑧	Move to the next file	⑰	Save screenshot as a jpeg file
⑨	Time lapse	⑱	Back up selected files

12_TROUBLESHOOTING

The device will not turn on	- Ensure the power cable is connected and that power is flowing.
File date and time are incorrect	- May occur when the vehicle battery is discharged. - Set the time-zone in device Settings.
Delays in video file loading in PC viewer	- Micro SD Card may be infected with a virus. Format the Micro SD card and try again.
Errors in folder or file names in PC	- The device must be turned off when ejecting the Micro SD Card. Folder or file name errors may be caused by failing to turn the device off before ejecting the Micro SD Card. Format or replace the Micro SD card.
The device says "PLEASE CHECK SD CARD"	- An error occurred when saving the file. Format the Micro SD card. If the Micro SD card is not recognized or cannot be formatted, replace the Micro SD card.

13_DEVICE SPECIFICATIONS

Item		Specification
Camera	Channel	2 CH
	1Ch Camera	2 M Pixel / 1/2.8" CMOS Image Sensor
	2Ch Camera	2 M Pixel / 1/2.9" CMOS Image Sensor
Recoding	Resolution	FHD (1920x1080)@30fps - FHD (1920x1080)@30fps
	Driving Mode	Continuous, Continuous Impact, Manual
	Parking Mode	Parking, Parking Impact, Parking Motion
Storage		microSD 16 GB (MLC, Class10) ~ MAX 64 GB (SDXC)
Wi-Fi		Built-in (802.11n)
Video Codec		H.264
ADAS		FVSA / LDWS with external GPS (Optional)
Audio		Mic / Speaker (Voice Information System)
Operating LED		Security, Status
G-Sensor		3-Axis Acceleration
Button		Wi-Fi ON/OFF, Manual Recording
Color		Black
Power Input		DC 12~24 V
Operating Range		-20 ~ +70℃ (-4 ~ 158 °F)
Weight		59 g (Main Body Only)
Dimension		101 x 42.5 x 25.5 mm (39.8 x 16.7 x 10 in)
Application S/W		PC Viewer

* Device specifications are subject to change without notice.

14_QUALITY ASSURANCE

This device has undergone strict quality control and inspection procedures.

- Main unit : One-year warranty from date of purchase
- Micro SD Card : 6-month warranty from date of purchase
- Warranty Service : The device may be serviced free of charge for one year from the date of purchase. Purchase date is tracked by device serial number.

Critical device malfunction within 10 days of purchase	Free device exchange
Same malfunction occurs more than 3 times within 1 year of purchase	Free device exchange
Various malfunctions occur more than 5 times within 1 year of purchase	Free device exchange
Malfunction caused by user	Repair at cost
Micro SD Card malfunction within 6 months of purchase	Repair at cost

Repair at cost for:

- Device malfunction due to impact to the device, negligence/carelessness, or contact with liquids.
- Device that has been improperly disassembled or modified.
- Device malfunction due to exposure to natural disasters such as fire, earthquake, flood, etc.

15_CERTIFICATION

- Model : XMOTION XW2
- Manufacturer : ULINK INC.
- Country of manufacture : South Korea



FCC Compliance Statement

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.

FCC Interference Statement

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 correct the interference by one 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 which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- This appliance and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.
- A minimum separation distance of 20cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirements.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC ID: 2AU6Y-XW2

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an un-controlled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement

This device complies with RSS-247 of the Industry Canada 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. Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Industry Canada Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an un-controlled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

