2CH Wi-Fi DASH CAMERA
LK-7950 WD

User Manual   ver. 4.0

LUKAS DashCam

[Download the Lukas App on Google Play]   [Download the Lukas APP on Apple App Store]

※ The Lukas application can be found on the Google Play Store and the App Store.
※ The Lukas application can be used with Android 4.0 or later, iOS 5.0 or later.
※ Lukas Application may differ in contents depending on varying versions of the application or the device.
※ Wi-Fi connection could be interrupted depending on network environments and/or types of smartphones.
※ Due to the format-free feature the device has, past video clips can be played back through general media players depending on file size.
※ Due to the format-free feature the device has, some settings of memory card can be restricted. (e.g. intervals for recordings, image quality and etc.)
※ Due to the format-free feature the device has, memory card efficiency may be affected.

Thank you for choosing Lukas Dash Camera.

This manual is based on the LK-7950 WD model.
The latest firmware & manual can be found at our website **www.lukashd.com**.

▤ Please read carefully before using this product ▤

- ※ This manual should be reviewed and retained for future reference.
- ※ Qrontech reserves all rights to this manual in accordance with the copyright law.
- ※ Content of this manual is subject to change without notice to ensure quality control.
- ※ Device functionality may differ depending on the firmware version installed.
- ※ This product is designed as an accessory for safe driving. In the event of an accident, the driver must take full responsibility. Please use this product accordingly.

▤ Scope of guarantee and responsibility ▤

- ※ This product is a vehicle-accessory for recording videos and sounds to provide visual proof of a vehicular accident. We cannot guarantee that this product captures all accident-related videos and sounds.
- ※ We will not be held responsible for any damages and/or data corruption or loss caused by a malfunction of this product.
- ※ In general, the memory card lifespan for this product is 6 months and may be subject to data corruption or loss due to static electricity and/or existing in the surrounding environment. For this reason, it is highly recommended for the user to copy and save important data to other media devices. (hard disk, CD, portable memory etc.)
- ※ Although this device comes with a format-free feature, the memory card(s) may obtain corrupted videos (omissions in recording, image cuts, omissions due to changes in frame rates, & other recording defects) due to a decrease in reading/writing speed. For the best results, please use a genuine Lukas SD card and format it on a regular basis (once a month for 8G SD and microSD cards).
- ※ This device is an auxiliary device to record driving videos. Please use this device for reference purposes only. There may be times when recording is unstable due to various driving conditions.
- ※ We will not be held responsible for any damages related to engine output if the user records in parking mode without an external external battery.

LK-7950 WD
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1. Instruction for Use

≣ 1-1. Precautions and Notices ≣

1. Do not expose the device to direct sunlight or cold weather for extended periods of time.
   Direct exposures to sunlight and extreme temperatures may cause damage to the device.

2. Do not attempt to service the device.
   Do not attempt to disassemble, modify, or repair the product. Warranty coverage will be void if a repair has been attempted by the user or an unauthorized source. Please contact your local dealer or Lukas customer service for more information.

3. Do not attempt to service Lukas accessories.
   Do not attempt to disassemble, modify, or repair the accessories provided by Lukas. (cigar lighter power cable, mount bracket, etc.)
   This may cause damage to the user's vehicle and/or device. Any resulting damage shall be the responsibility of the user and is not covered under the manufacturer's warranty.

4. Do not allow liquid to come into contact with device.
   Please note this device is not waterproof and exposure to liquid and foreign substances may cause a device malfunction, short circuit, and/or fire.
   Be cautious when cleaning the device and clean with a soft and dry cloth.

5. Do not expose the device to heavy impacts.
   Heavy impacts to this device can cause critical damage to the device. Handle the device with care.

6. Only use manufacturer-approved accessories.
   Any damages to the device/vehicle incurred as a result of using accessories incompatible with the device will not be covered under the manufacturer's warranty.

7. Do not operate the device for extended periods of time while the vehicle is not running.
   Excessive use of the device while the vehicle is off can cause drainage to the vehicle's battery.

8. Video quality may vary depending on extreme lighting conditions
   Video quality may very in the event of an extreme change in lighting conditions surrounding the vehicle. Most notability when entering/exiting a tunnel or parking garage.

9. Data may not be recorded if an impact is not strong enough to reach the set level of G-sensor customized by the user.
   In extreme cases, the device may not record data during an accident due to low-impacts, not triggering G-sensor to start event recording.
   In addition, a high-impact to the vehicle may disrupt power to the device and data may be lost.

10. Do not disconnect the power source while the device is turned-on.

    Disconnecting the power source may cause the device to malfunction. Please use only the recommended voltage for power connection.

11. Some PCs may not support Lukas Viewer or there may be some disconnections in voice/image depending on the PC's specifications.

12. AE operations at night may vary depending on the color of the vehicle(black, red) reflecting less light.

13. There may be frame omissions due to rapid AE operational changes in low light areas.

14. There may be noises in the video if recorded in poor lighting environments.

15. In the event of a sudden frame change or switching between parking & driving modes, there may be a loss of data.
    Please reset the installation angle of the device if AE operation malfunctions.

16. Motion detectors may malfunction in the event of an extreme increase/decrease in the surrounding lighting conditions of the vehicle.

17. The motion detection function may not operate properly in environments with poor lighting conditions due to noises and vehicle security LED(s).

18. The left/right side image quality of this device may vary due to the characteristics of the wide-angle lens.

19. Traffic lights may appear to be flickering due to location or signal frequency.

20. This product supports OBD II, but users are recommended to inquire of distributor or customer center about applicable vehicles, and more information in detail before use. (Software/hardware modification).

21. Please ensure all accessories are connected to the front and rear cameras to avoid data loss.

22. We will not be held responsible for any damages related to engine output if the user records in parking mode without an external battery.

23. The camera cannot be connected via Wi-Fi with more than one device at a time.

24. For playback of recorded videos using Wi-Fi, the reception may vary according to the data transfer rate and the smartphone.

25. The range of Wi-Fi reception may vary.

26. Do not continue to use this device if a malfunction is apparent. Please contact our C/S centre or your local distributor for any questions and/or problems with this product.

▤ 1-2. Installation ▤

1. Keep the surrounding area of the device clear.
   Please ensure the surrounding area (i.e. dashboard) is clutter-free to avoid windshield reflections that may reduce the device's recording quality.

2. Ensure camera lens is clean at all times.

3. Do not attempt to operate or install the device while driving.
   For your safety, do not attempt to operate or install the device while driving to avoid a traffic accident.

4. Please keep the device securely mounted.
   Please check that the device is firmly attached on the windshield before operating the vehicle. This will ensure the best video quality and avoid distractions while driving.

5. Please avoid excessive window tints, as this may distort image quality.

6. Install this device at the point furthest away from antenna or receiver as possible.
   The electromagnetic waves produced by the device interfere with receiving signals.

7. Videos may appear dark when using a CPL filter.
   We don't recommend using a CPL filter at night or with vehicles with excessive window tints.
   Depending on tinting conditions, a 'rainbow' effect may appear on recorded data.

8. Please remove the UV filter when using a CPL filter.
   Using a CPL filter on top of a UV filter may result in 'a vignette effect' in some of the videos recorded.

▤ 1-3. GPS ▤

1. A typical GPS receiver achieves an accuracy of 15 meters. There may be conditions where GPS signals cannot be received depending on the driving environments such as tunnels, underpasses, skyscrapers, and street lights which affect the accuracy level.

2. A combination of factors including weather can delay the time to receive the first GPS signal after power is connected to the device.

3. External electronic devices and window tinting may affect the GPS reception.

4. Vehicle speed accuracy may vary between 1-30km/h (0.5-19mph) depending on the reception area when stopping the vehicle.

5. GPS information may be lost when switching off the device.

6. Time errors can occur if the device does not have GPS.

▤ 1-4. Memory Card ▤

1. Do not remove the memory cards by force while the device is in recording mode.
   Be sure to turn off the device before removing the memory cards. Removing the cards with the device running may damage the video file or cause an operational error of the memory cards.

2. It is recommended to format the SD and micro SD cards at least once a month (for 8GB.)
   Repetitive writing and deleting of memory cards can cause damage to the the cards themselves as well as the files stored in them. Therefore, periodic formatting can prevent the cards or files from such damages. In addition, the longest lifespan of a memory card is 6 months and the manufacturer is not responsible for recording problems that take place due to prolonged use of a memory card past the lifespan.

3. Use memory cards supplied by the manufacturer.
   We shall not be responsible for any problems caused by using memory cards not provided by the manufacturer.

4. Handle with care when inserting and removing memory cards to avoid burns.
   The memory cards operate at very high temperatures, so you must be careful of handling the cards.

5. Operating temperatures may vary depending on the performance of memory cards.

6. Be sure to backup your recorded videos using an extra storage device. (PC, external HDD, etc.).
   A backup of the memory card data using an external storage device can prevent the loss of important data.

7. Be sure to format the SD card when changing mode setting on Lukas viewer.

8. After a memory card format, the user's custom settings will be automatically applied.
   As the user settings are already saved on the device, device configuration will automatically be applied to a recently formatted memory card.

9. Please format memory cards without removing it from the device. You can format them on the formatting menu right from the device.

10. Be sure to insert microSD card into the device.
    Without microSD card, event recordings cannot be saved.

11. Do not insert the microSD card into the SD card slot using a microSD card adaptor. It may cause malfunction or damages.

12. This model has a format-free feature. Malfunctions may occur if unsupported files are copied to, moved or deleted from the memory card(s).

13. When formatting on a PC, we recommend that users opt for the full format option rather than the quick format option.

2. Features

▶ **Supports a variety of recording functions** : Vivid video quality with dedicated sensors for Front/Rear cameras : 2.1M Effective Pixel(1/2.9")
Sony IMX322 Full HD dedicated sensor

▶ **Distortion-free recording with wide angle lens**

Front view : 1920X1080p Full HD recording, with max. 30fps /
16:9 wide screen (diagonal (approx. 135°) / effective viewing angle: horizontal (approx. 107°), vertical (approx. 55°))

Rear view : 1920X1080p Full HD recording, with max. 24fps / effective viewing angle: horizontal (approx. 105°), vertical (approx. 54°))

▶ **Supports Wi-Fi (802.11b/g/n (2.4~2.4835GHz))**

▶ **Equipped with car battery discharge prevention function** : Multi-booting support, Leakage current 100uA or less

▶ **Supports a variety of recording functions** : Continuous recording : generates recording files at three-minite interval continuously
: Event recording : records before/after an impact is detected for 30 seconds in total
: Dual Slot (SD+microSD), Dual Save (Always+Event / Motion+Event)

▶ **Supports format-free**

▶ **Supports largest memory capacity of 1024GB (SD Card 512GB + microSD Card 512GB)**

▶ **Supports voice guidance in 21 languages (English, Korean, French, European Spanish, Latin America Spanish, Arabic,**
Chinese(Mandarin, Cantonese), Russian, Japanese, Thai, Italian, Vietnamese, German, Mogolian,
Turkish, Hindi, Czech, Portuguese, Bahasa Indonesia, Bahasa Melayu)

▶ **Supports Dual security LED & 37mm UV filter(standard), CPL filter(optional)**

▶ **Supports Built-In GPS (GPS+GLONASS), OBD II (optional)**

▶ **Detachable fixed/rotating mounts**

▶ **No interruption to the electronic rear window shade by minimizing the height of the rear camera.**

▶ **Built-in microphone** : Records audio simultaneously.

▶ **Direct memory card format** : Formats the memory card directly on the device.

▶ **Built-in super capacitor** : An internal battery replacement is not necessary due to a built-in semi-permanent super capacitor which will write all files onto
the memory cards before the device turns off.

▶ **Firmware upgrade support** : Firmware will be upgraded to improve performance and error correction.

▶ **Configuration setting available** : Configuration settings available directly on the device itself.

3. Components
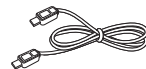
▤ 3-1. Package Guide ▤

Front Camera
(8G microSD + UV Filter
and Wi-Fi dongle included)
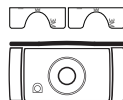
Rear Camera
+ Adhesive Tapes

Hard Wire Power Cable
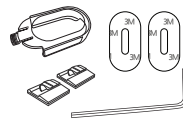

Front/Rear Connection Cable(5m)
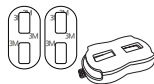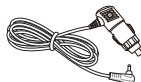

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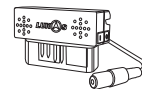

SD Card

microSD Card Adapter

Fixed Type Bracket Set
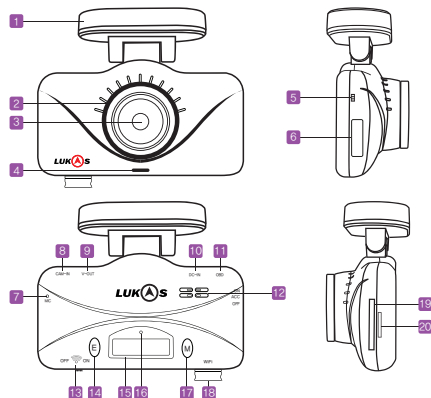

Rotating Type Bracket Set
(optional)

Cigar Power Cable (optional)

CPL Filter (optional)

OBD II module (optional)

– This package guide is described based on standard type model (Non-OBD type).

– Product package is subject to change depending on models and types.

– Hard wire power cable is not included in OBD type model (type D).

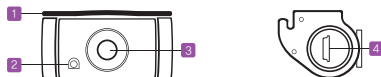– Do not use a microSD card adapter in the device or it may malfunction.

▤ 3-2. Names & Functions of each part ▤

	Name	Function
1	Stand & GPS(built-in)	Installed on car & receives GPS info(only applied to device with GPS stand)
2	37mm UV filter	Used to protect lens through UV protection filter and lengthens sensor lifespan
3	Camera Lens	Video signal input (CMOS Digital Sensor)
4	Security LED	Displays dash cam operation status, gives warning during recording
5	Power Switch	Dash cam power supply switch
6	S/N	Product name & serial numbers
7	MIC	Voice signal input
8	CAM-IN	Rear camera input connection
9	V-OUT	Real time video output of dash cam using video output terminal
10	DC-IN	Device power supply through power connection
11	OBD	OBD connecctor
12	Sound output	Various effect sounds and sound output
13	Wi-Fi Switch	Wi-Fi On/Off switch
14	Emergency Recording Button	Emergency(event) recording(30-sec video is saved in event folder)
15	Segment LED	Displays time, speed, status, etc.
16	Operation status LED	Displays dash cam operation status etc
17	Emergency Recording Button (E)	Press longer than 3 sec : Segment LED switch On/Off, Voice guidance On/Off (Alternatively turns On/Off the two functions)
		Press shorter than 2 sec: Voice recording On/Off
18	Wi-Fi	Wi-Fi dongle connector
19	SD Slot	Used to insert/separate SD card
20	microSD Slot	Used to insert/separate microSD card

Direct Format from Dash Cam

1. First, insert SD card into the dash cam and wait until booting is completed.
2. Press 'E' button (14) and 'M' button (17) at the same time.
3. segment message 'FOR' will appear/blink on screen and wait 15 seconds
4. Formatting starts: Press 'E' button (14) again, LED segment will disappear with voice alarm and will reboot. (Time consumed 12sec/32G standard time)

※ Both SD/microSD will be formatted automatically from dash cam.

|	Name	Function
1	Stand	Through which rear view camera can be installed to the car
2	Security LED	Displays dash cam operation status, gives warning during recording
3	Camera Lens	Video signal input (Sony IMX 322 Sensor)
4	Cable Connection	Rear view cable connection terminal

4. Installation

▤ 4-1. Precautions ▤

※ Before installation, please park the vehicle on a level surface and bright area. Turn off the engine and remove the key.
   (Be sure parking break is ON)

※ Pick a spot for the device behind or near the rear view mirror not blocking the driver's vision.

※ Clean the windshield where the dash cam will be installed.

※ Do not install the device with the lens facing upwards or it may cause malfunctioning in GPS or in event recording.
   (i.e No GPS reception or continuous recording in event mode.)

※ Adjust camera lens angle, so that it shows approximately 40% of the car bonnet on the bottom of the driving footage.

– If the lens is installed excessively facing downwards, traffic signs will not be recorded, keeping you from retrieving the exact information.
   When the lens is installed too high, the screen looks dark overall due to the bright sky.
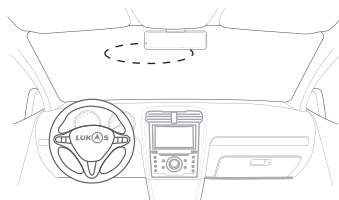
▤ 4-2. Step-by-Step Installation ▤

1 Connect the Wi-Fi dongle to your Lukas device. Turn the Wi-Fi button ON located directly across from the Wi-Fi dongle.
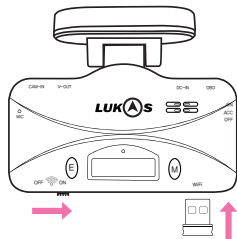
**2** Put on two-sided adhesive tape on front/rear stand of the dash cam.
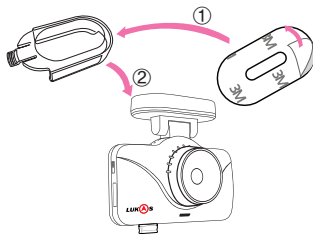
3 Select a place not blocking the driver's view, install front camera onto the windshield around the rear view mirror. Do the same with the rear camera onto rear windshield.

※ Detaching and reattaching the adhesive tape causes the tape to lose its stickiness.
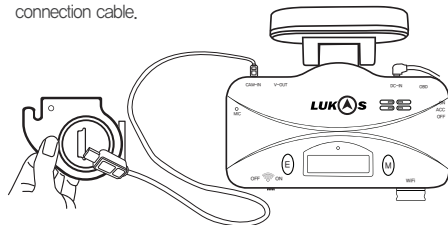
▓ 4-2. Step-by-Step Installation ▓

3   Insert SD card and microSD card into front camera.
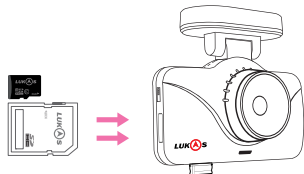
※ If you do not insert microSD, event files are not saved.
※ Do not insert the microSD card into the device using a microSD card adapter.

5   Connect front camera and rear camera with front/rear connection cable.


※ If there is no SD card, the device will not work.
※ The device will be rebooted when the rear connection cable gets connected/disconnected.
※ The device does not work properly if the rear connection cable is not firmly connected to the rear camera.

4   After connecting power cable to the front camera, run the power cable along the windshield headliner all the way to the driver side A-pillar trim (as shown in the picture colored pink.)
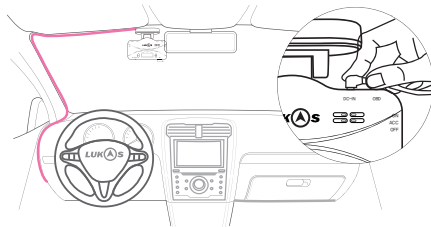
6   After installation, turn the engine on and select the power option (ACC or ON) on the device.
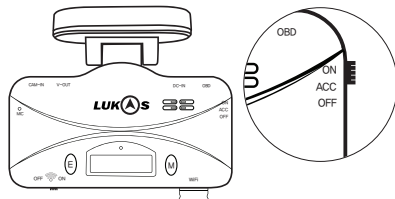
※ Make sure the device is turned OFF when connecting/disconnecting the the cable to the rear camera. Otherwise, the device can be damaged.

▤ 4-3. Segment LED Messages ▤

※ Entire segment message will blink when event recording occurs.

Segment LED Message	Voice Guidance	Details
F.25	Welcome, this is Lukas blackbox. Drive safely.	Firmware version appears at the initial boot of the device. (Firmware version may differ depending on the device model.)
5:09	–	After the dash camera is powered, time is displayed when your vehicle is at a stop. (This may differ according to configuration settings)
6.09	–	After the dash camera is powered, date is displayed when your vehicle is at a stop. (This may differ according to configuration settings)
53	–	Displays the speed when driving. (Depends on configuration) Speed isn't displayed below 5km or 5miles.
'	Voice recording started. Voice recording stopped.	When the sound recording function is activated, the dot on the top will blink. (3 second intervals)
.	–	When Wi-Fi is connected, the dot on the bottom will blink.
LoPo	–	Appears when the input voltage is low. Dash cam goes into the standby mode and the segment message blinks.
drv	Driving mode recording started.	When switched to driving mode, 'drv' is displayed.
PAr	Parking mode recording started.	When switched to parking mode, 'PAr' is displayed.
UPdA	–	When starting a firmware update, 'UPdA' is displayed.
SEE You	–	When the device turns off, 'SEE You' is displayed.

▤ 4-3. Segment LED Messages ▤

Segment LED Message	Voice Guidance	Details
FAt	Formatting on standby. Press the left key to format.	The segment message 'Fat' blinks.
For	SD card formatting. Do not turn off the power. Processing complete.	The segment message 'For' blinks.
Sd_FAiL	No SD card.	When SD Card is not inserted or removed by force, 'Sd_FAIL' is displayed.
buSY	–	Appears when SD Card is in need of formatting.
dAY	This vehicle is subject to No-Driving Day program.	If the function is activated, 'dAY' is displayed.
CHt	Recording failure 2 / Recording failure 3 Please format.	'CHK' is displayed if the SD Card requires immediate formatting.
no_uSd	–	Appears when micro SD Card is not inserted.
ErrO ～ **Err5**	–	Err0 : RTC problem occurred. Device needs to be repaired. Err1 : Camera cannot be connected. Device needs to be repaired. Err2 : Please check the rear camera or the connection cable. Err3 : Memory card problem occurred. Please format your memory cards. Device needs to be repaired if this segment message continues. Err4 : OBD module communication problem occurred. Please check the OBD Ⅱ connection cable. Err5 : Wi-Fi dongle is detached. Your dash camera will restart.

※ The segment LED will turn off while in parking mode.

▤ 4-4. Memory Card Usage ▤

- Video is recorded at 3-minute interval for continuous recording, 30-second interval for motion and event recording.
- Below table is based on the SD Card setting which is set to the following proportional storage assignment for different recording modes: continuous 70% and motion detection 30%

1. SD Card usage time

	Continuous Recording (Based on 3min)			Motion Detection Recording (Based on 3min)		
	No. of files for front view	No. of files for rear view	Total usage time	No. of files for front view	No. of files for rear view	Total usage time
8G	22	22	1h 6min	56	56	28min
16G	45	45	2h 15min	116	116	58min
32G	91	91	4h 33min	236	236	1h 58min
64G	184	184	9h 12min	473	473	3h 56min 30s
128G	368	368	18h 24min	948	948	7h 54min

2. microSD card usage time (event recording)

	8G	16G	32G	64G	128G
No. of files for front view	188	386	786	1578	3160
No. of files for rear view	188	386	786	1578	3160
Total usage time	1h 34min	3h 13min	6h 33min	13h 19min	26h 20min

※ Front and rear motion detection files are stored separately.

※ The total usage time above is an approximation. There may be some variation with actual recording time and the number of files stored depending on the user's environment.

※ The above 'Total usage time' is calculated by adding the recording times of front/rear videos.
  Videos for the front and rear cameras are saved separately.

5. Product Usage

≣ 5-1. Basic Operation Guide ≣

1. How to start and stop recording

You can easily set 'power safety function' by manipulating the power switches on the device.

ON
ACC
OFF

- ON : supports recording during driving/parking (operates up to set voltage or time during parking)
- ACC : supports recording during driving (dash cam begins to operate when the engine is on and it stops operating when engine is off)
- OFF : power not supplied to the device.
※ Check if the memory cards are inserted into the device before turning it on.
※ After the device has successfully started, it will start recording after voice message "This is Lukas black box, Drive Drive safely."

2. Standard Recording Mode

	Continuous Recording	Motion Detection Recording	Event Recording	Emergency Recording
Storage Place	SD card	SD card	SD card/microSD card	microSD card
Folder	AlwaysMovie	MotionMovie	AlwaysMovie / EventMovie	EventMovie
Storage Time	3min	30sec	30sec	30sec
Video Display	Always	Parking / Motion	Always + Event / Event	Event
Characteristics	Records continuously while driving	− Records when motion is detected if motion detection function is enabled. − Able to set the level of motion detection sensitivity (G-sensor.)	− Records when impact takes place during driving or parking − Able to set the level of motion detection sensitivity (G-sensor.)	Records whenever you need to by pressing emergency recording button

※ With a microSD card inserted, videos from event recordings are saved onto the microSD card in the EventMovie folder. Continuous recordings will be saved in the AlwaysMovie folder of the SD card.
※ If there is no microSD card inserted, event videos will not be saved. Only videos from continuous recording will be saved onto the SD card.

3. Video Playback

– Check recorded video : You can watch recorded video when you select 'SD Card' button on the Lukas App. You can also access and format your SD and microSD cards using the Lukas viewer by inserting the cards to your computer.

4. Security LED Operation

	During Continuous Recording	During Recording While Parking	Event/Motion Taking Place
Front LED Status	Blue LED stays on continuously	Blue LED blinks slowly	Red LED blinks fast
Rear LED Status	Blue LED stays on continuously	Blue LED blinks slowly	Blue LED blinks fast

※ You can set the Security LED On/Off on your device: Configuration 〉 Additional Function. (When it is Off, the security LED doesn't work)

5. Working LED Operation

During Continuous Recording	During Recording While Parking	Event/Motion Taking Place	ACC OFF	Entering Battery Discharge Prevention
Blue LED stays on continuously	Red LED stays on continuously	Red LED blinks slowly	Blue LED blinks slowly	Blue LED blinks fast

※ The device will terminate power if the vehicle's battery drops below a predetermined voltage and will be indicated by a fast blue blinking light.

6. Recording while Driving

– Continuous Recording : Files saved to the AlwaysMovie folder on the SD card.

　　　　　　　　　　　　　　※ When playing back recorded videos, "Always" is displayed on the bottom part of the footage.

– Event Recording : Recorded for 30 seconds in total – 10 seconds before / 20 seconds after an event occurs.

　　　　　　　　　　　Files saved to the EventMovie folder onto the microSD card.

– Emergency Recording : When pressing the Emergence Button ('E' Button) for approximately 1 second; recording will begin (with a sound notification)

　　　　　　　　　　　　　for 30 seconds and is saved to the microSD card in the EventMovie folder.

　※ Emergency recording cannot operate during event recording and vice versa.

6. Recording While Parked

– Parking mode is activated when the device power is ON.

  ※ Note that recording and the device itself will be turned off if the vehicle's battery drops below the voltage level set by the user.

– How to change to parking mode : How to change to parking mode: The device can be programed to activate 'auto-conversion to parking mode' function after the user's customized time setting. When the device converts to parking mode, a voice segment ("Switched to parking mode") is announced.

  ※ 'Auto-conversion to parking mode' can be programed in the "**Configuration Setting 〉 Basic Functions**" of the Lukas viewer or on the Lukas mobile app: "**LUKAS Setting 〉 Basic Functions**".

  ※ As recoding stops and converts to parking or driving mode, less than 5 seconds of video may be lost.

– Recording in parking mode : "**Motion**" LED segment will be displayed on the bottom part of the footage when playing back a recorded video.

  ※ When converting from continuous, event, or manual recording mode to parking mode, each recorded file will be ended and converted to parking mode. For this reason, video loss can occur.

– When selecting 'Use motion detection' in the configuration settings, video will be recorded for 30 seconds in total when motion is detected. Each video file consists of 10-second footage before a motion is detected, followed by 20-second footage after the motion detected. Files will be saved in the Motion Movie folder.

  ※ For efficient memory management only the camera that detects a motion (either front or rear) will record the motion.

  ※ You can set the motion detection function on the Lukas Viewer : "**Configuration Setting 〉 Motion Detection**"or directly from the Lukas App : "**LUKAS Setting 〉 Motion Detection**".

  ※ RED LED will blink while motion recording is activated.

  ※ Motion detection may fail when the vehicle is in extreme lighting conditions.

  ※ Recording time during parking mode may vary depending on the vehicles' battery voltage.

  ※ Motion recording may continue according to changes in the surrounding environments. Therefore, the level of sensitivity must be in accordance with the user's parking environment(E.g. When parking in an alley or underground, frequent movements may interfere with motion recording if set on a high sensitivity.).

7. Checking Driving Information

– Lukas dash cam can record up to approximately 2 million driving information onto the microSD card. After you have set the time interval for saving the driving information on the configurations settings, the device will automatically save the data on a regular basis.

▤ 5-2. Getting Started with the Lukas App ▤

※ Download the Lukas application on your smartphone.
   The Lukas application can be found on the Google Play Store and the App Store for iPhone.
   – The Lukas application can be used with Android 4.0 or later, iOS 5.0 or later.
   – The Lukas App may not be supported depending on the types of smartphones.
※ Turn the Wi-Fi button to On located at the bottom of the device.
※ For playback of recorded videos using Wi-Fi, the reception may vary according to the data transfer rate.
※ The range of Wi-Fi reception may vary.
※ The storage path of recorded videos may vary depending on the types of smartphones.

[Download the Lukas App on Google Play]   [Download the Lukas APP on Apple App Store]

▤ 5-3. Conntecting to the Lukas App ▤
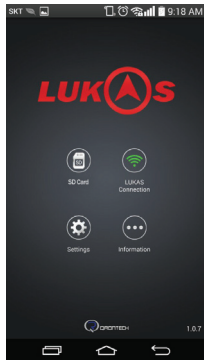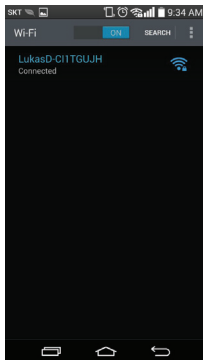
[LUKAS APP main menu]   [Connect smartphone with Wi-Fi]   [Enter password]
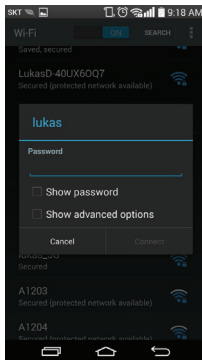
1. Select the Lukas Connection button on the main screen.
   ※ When the dash cam is connected with your smartphone, the Lukas Connection icon will turn green.
2. Select 'Lukas' on the Wi-Fi list.
3. Enter in the default password : '11111111'.

※ For a stable connection, please remain within close proximity to your dash cam.
※ Change your password to prevent others from accessing your dash cam.
※ You can change the device name and password on the Lukas Viewer program or Lukas App.

▤ 5-4-1. How to use the Lukas App - SD Card ▤

※ You can view your recorded videos saved on the SD Card right from the Lukas App.
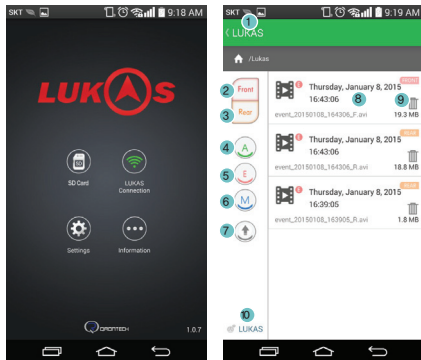
1. Back : Go back to the Main Screen.
2. Front Camera : Display videos captured by the Front Camera.
3. Rear Camera : Display videos captured by the Rear Camera.
4. Always Video : Display videos captured in Always Recording mode.
5. Event Video : Display videos captured in Event Recoding mode.
6. Motion Detection Video : Display videos captured in Motion Detection mode.
7. Customize : Arrange the order of videos by time sequence (ascending/descending).
8. Play : View videos file.
9. Delete : Delete videos file.
10. Wi-Fi : Go to 'LUKAS Connection'.

▤ 5-4-2. How to use the Lukas App - LUKAS Connection ▤

※ Connect with your Lukas device to view captured footage.
※ Green indicates a successful connection with the Lukas dash cam.
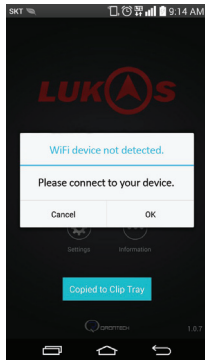
[Disconnect Wi-Fi]
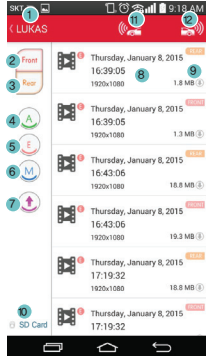
[Wi-Fi Connection]

1. Back : Go back to the Main Screen.

2. Front Camera : Display videos captured by the Front Camera.

3. Rear Camera : Display videos captured by the Rear Camera.

4. Always Video : Display videos captured in Always Recording mode.

5. Event Video : Display videos captured in Event Recoding mode.

6. Motion Detection Video : Display videos captured in Motion Detection mode.

7. Customize Order : Arrange order of videos by time sequence (ascending/descending).

8. Play : View footage file.

9. Download : Save videos file onto your smartphone as a movie clip.
   File path may vary depending on the type of smartphone and OS.

10. SD Card : Go to 'SD Card'.

11. Front Camera LIVE : View a live video stream from the Front Camera.

12. Rear Camera LIVE : View a live video stream from the Rear Camera.

▤ 5-4-3. How to use the Lukas App - Settings ▤

※ Settings only available when Lukas device is connected to a smartphone
※ Menu items may vary depending on the model of your device.
※ Keep the device powered on while configuring the settings.
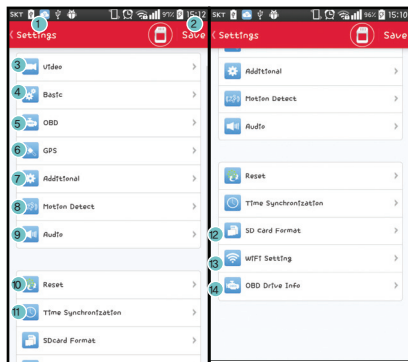
1. Back : Go back to the Main Screen.
2. Save Changes : Changes will be saved and applied.
3. Video : Configure video settings.
4. Basic : Configure basic settings & functions.
5. OBD : Configure OBDII settings.
   ※ Only applicable to devices connected to a OBD II module.
6. GPS : Configure GPS settings.
7. Additional : Additional settings and functions.
8. Motion Detection : Configure settings for Motion Detection.
9. Audio : Configure audio quality and settings.
10. Reset : Reset your device to factory settings.
11. Time Synchronization : Synchronize time on the device with your smartphone.
12. SD Card Format : Format microSD / SD Card.
13. WiFi Settings : Verify changes to the Wifi network of the device.
14. OBD Driving Information : View the OBD driving screen.

▤ 5-4-4 How to use the Lukas App – Information ▤
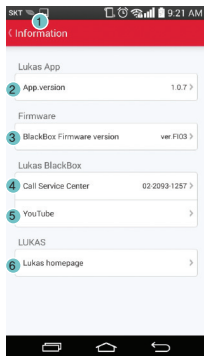
1. Back：Go back to the Main Screen.
2. Application Version：Displays current mobile app version.
3. Firmware Version：Displays current firmware version of your device.
4. Call Service Center：Contact Lukas for more information.
5. YouTube：View our YouTube channel.
6. Lukas Homepage：Visit Lukas homepage for more information.

▤ 5-5. Lukas Viewer ▤

1. Program Installation

1 Connect the SD card to PC.

LUKAS
QVIA
8GB
SD-8G-
1414-1000

➡

2 Click "Setup.exe" to install Lukas viewer.

Setup.exe

➡

3 Double click the shortcut once installation is completed.

※ The icon name may differ according to the product model.

Lukas 7950 WD
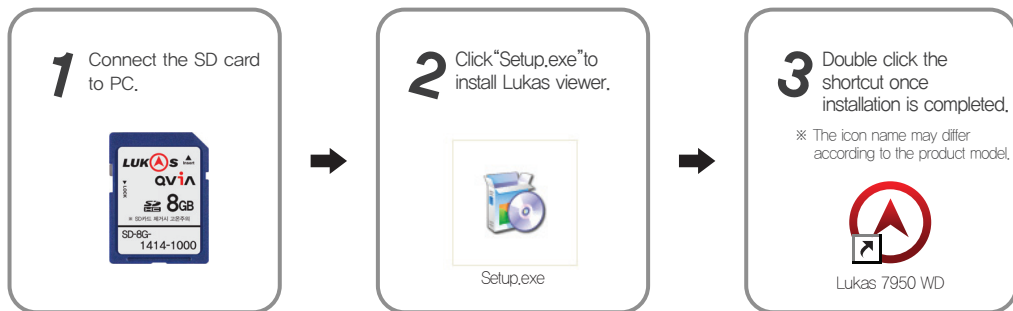
※ Lukas viewer can be download at any time from our website (www.lukashd.com).

※ Name of viewer icon may vary depending on OBDII compatibility.

Recommended PC specifications for using Lukas viewer	OS: Windows XP SP3, Vista (32Bit), WIN 7,8 (32/64bit) H/W: Quad core 2.8Ghz/ 4G RAM Web browser: Microsoft internet explorer 7.0 Direct X version: Direct X9.0 (JUNE2010) Others: Windows.NET Framework 4

※ For best results, please use the Lukas Viewer distributed for your device.
There may be occasional display and sounds cuts, as well as changes in play speed and other errors depending on your computer specifications.

3. Viewer Screen Composition

Load file
Print video being played
Screenshot
Settings
Set time

GPS info

File list

0 Km/h | HDOP | 1.0
Satellite | 0

RECORD | INFORMATION

File list & event info
Front view black box display icon
Front view video file name :
alwa_20140219_221849_F.avi

Rear view camera display icon
Rear view video file name :
alwa_20140219_221849_R.avi

Main video play window

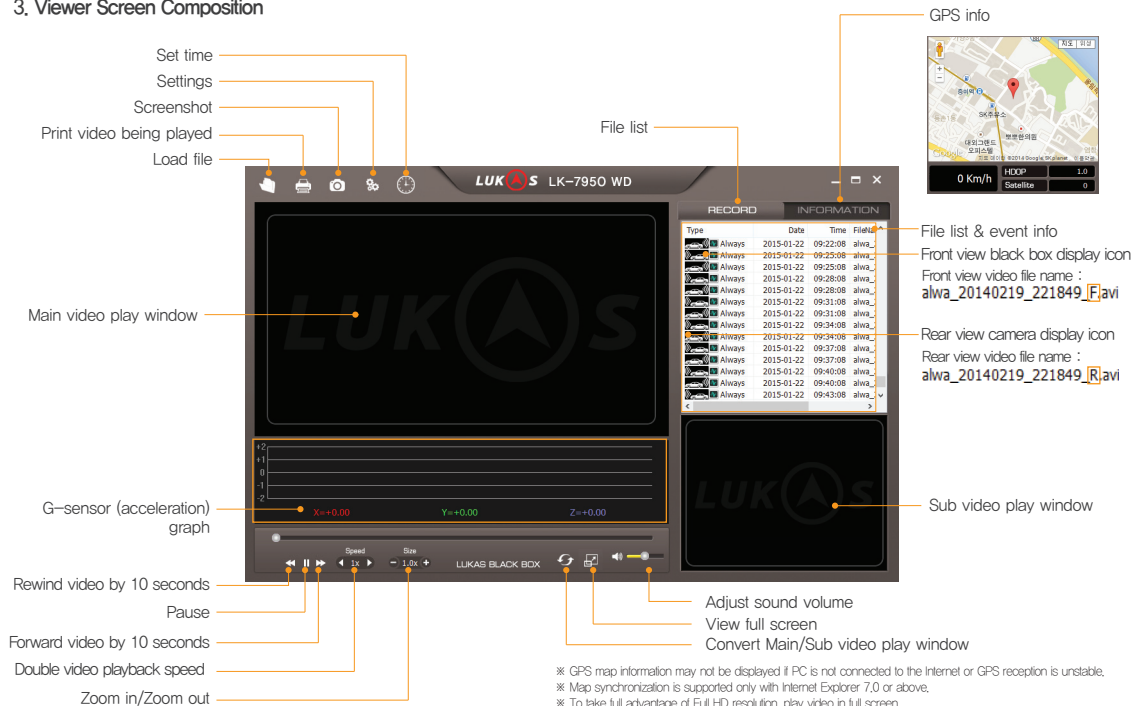| Type		Date	Time	FileN
	Always	2015-01-22	09:22:08	alwa_
	Always	2015-01-22	09:25:08	alwa_
	Always	2015-01-22	09:25:08	alwa_
	Always	2015-01-22	09:28:08	alwa_
	Always	2015-01-22	09:28:08	alwa_
	Always	2015-01-22	09:31:08	alwa_
	Always	2015-01-22	09:31:08	alwa_
	Always	2015-01-22	09:34:08	alwa_
	Always	2015-01-22	09:37:08	alwa_
	Always	2015-01-22	09:37:08	alwa_
	Always	2015-01-22	09:40:08	alwa_
	Always	2015-01-22	09:40:08	alwa_
	Always	2015-01-22	09:43:08	alwa_

G-sensor (acceleration) graph

X=+0.00   Y=+0.00   Z=+0.00

Sub video play window

Speed   Size
◀◀ ❚❚ ▶▶   ◀ 1x ▶   − 1.0x +   LUKAS BLACK BOX

Rewind video by 10 seconds
Pause
Forward video by 10 seconds
Double video playback speed
Zoom in/Zoom out

Adjust sound volume
View full screen
Convert Main/Sub video play window

※ GPS map information may not be displayed if PC is not connected to the Internet or GPS reception is unstable.
※ Map synchronization is supported only with Internet Explorer 7.0 or above.
※ To take full advantage of Full HD resolution, play video in full screen.
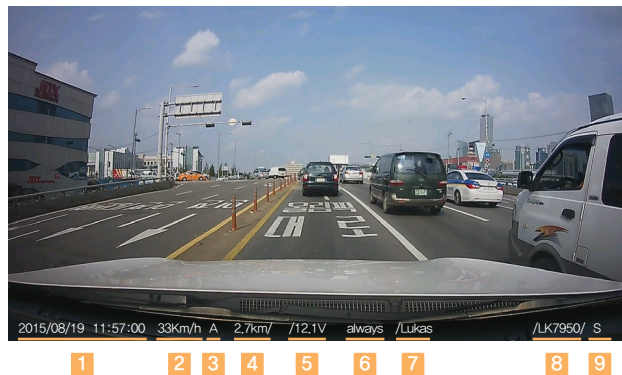※ Viewer image may be different when in sync with OBD II.

3. Settings

– Please use the settings menu to manually change settings to you device.
  (i.e recording configuration, system configuration, additional functions, and time, etc.)

4. Video Playback Screen

2015/08/19 11:57:00 33Km/h A 2.7km/ /12.1V always /Lukas /LK7950/ S
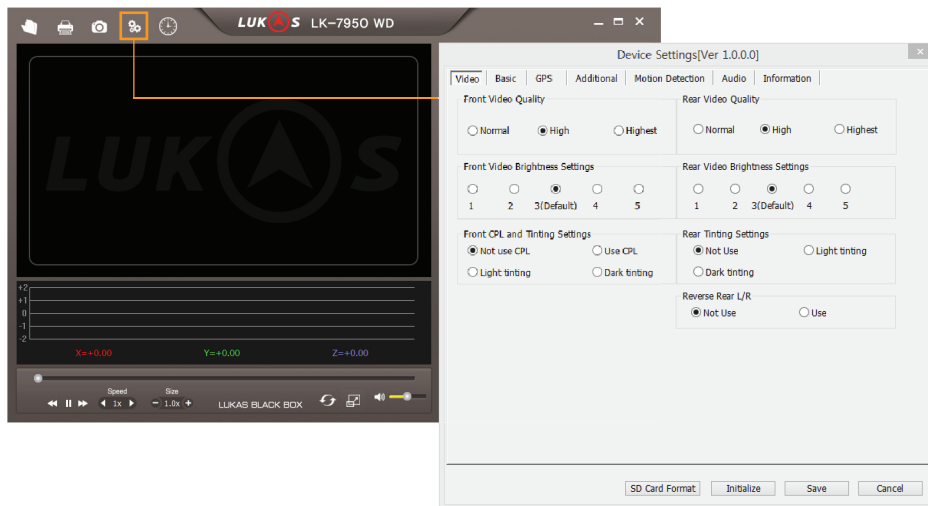
1	Date & Time
2	Driving Speed ※ Only with GPS or OBD Ⅱ
3	GPS Communication Status ※ A : GPS received ※ V : no GPS reception ※ F : GPS power not connected
4	Mileage ※ Only with GPS or OBD Ⅱ
5	Dash Cam Voltage level
6	Recording Mode
7	Vehicle Plate Number (enter up to 8 digits.)
8	Device Model
9	Image Quality (video saving data speed/sec) ※ S : Best quality

6. Specifications & Quality Assurance

▤ 6-1. Product Specifications ▤

*Specifications are subject to change without notice for improvement.

Item	Specification	Remark
Camera	Front : Full HD dedicated 2.1M Effective Pixel SONY IMX322 Sensor, 1/2.9(inch) Rear : Full HD dedicated 2.1M Effective Pixel SONY IMX322 Sensor, 1/2.9(inch)	

Viewing Angle	Front : Diagonal(approx. 135°)
	    Effective Angle: horizontal (approx. 107°), vertical (approx. 55°)
	Rear : Diagonal(approx. 130°)
	    Effective Angle: horizontal (approx. 105°), vertical (approx. 54°)	

Recording Resolution & Frame	Front : 1920×1080p(Full HD), 30fps Rear : 1920×1080p(Full HD), 24fps	
Wi-Fi	802.11b/g/n (2.4~2.4835 GHz)	Dongle Type
Video Compression	H.264(AVI format) / Codec profile : HIP(High profile)	
Gravity Sensor	Built-In 3-axis Impact sensor(impact, sudden brake, sudden start)	
GPS	Built-In Dual Band(GPS+Glonass)	Option
Storage Media	SD Card : SDHC / SDXC memory card (standard 8G, max. 512G) microSD : microSDHC / microSDXC (standard 8G, max. 256G)	
Player Program	General media player / Lukas viewer	
Audio	Built-In speaker, Microphone	
Power & Current Consumption	Power: DC 10V~24V, Power consumption: 370㎃ (13.4V) , approx. 4.9W	Based on Type A
Low Voltage Cut-off	Able to set time & voltage, supports multi-booting	
Operating & Storage Temperature	Operating : −30℃ ~ 80℃(−4℉~158℉), Storage : −30℃ ~ 90℃(−4℉~194℉)	
Size/Weight	Front : 109 X 99 X 38 (mm) , 161g / Rear : 50 X 26 X 31 (mm), 25g	Including GPS, UV filter, Dongle

1. Memo

Quality Assurance

Model Name		Product S/N	
Customer Name		Date of Purchase	MM / DD / YY
Customer Phone No.		Place of Purchase	

1. A standard one-year warranty is provided from the date of purchase.
   However, a six-month warranty is provided for accessories, including memory cards.

2. This product has undergone strict quality control and inspection procedures.

3. Please provide all necessary information when making a warranty claim.

4. This user manual is a proof of purchase and warranty, and will not be re-issued. Take extra care keeping the manual safe.

5. We are not responsible for any charges related to the installation or uninstallation of this product, regardless of warranty status.

⦀ Certified company info. ⦀

1. Certified company : Qrontech Co., Ltd.
2. Device name (model name) : Lukas Dash Camera(Black Box)
   (LK-7950, LK-7950G, LK-7950D, LK-7950GD)
3. Certificate No. : MSIP-REM-QRN-FFWD
4. Manufacturer/Manufacturing country : Qrontech Co., Ltd. / Korea

Distributor and user must note that this device is electromagnetic wave compatible, only for business use, not domestic.

CE — Conformity European Marking
EU Joint Specification Certificate

FC — U.S. Federal Communications Commission /
Electromagnetic Wave Compatibility Certificate

www.lukashd.com

Made in Korea