

LUKAS VIEWER INSTALLATION AND ENVIRONMENT SETUP GUIDE

※ This manual is described based on Lukas Full HD models.

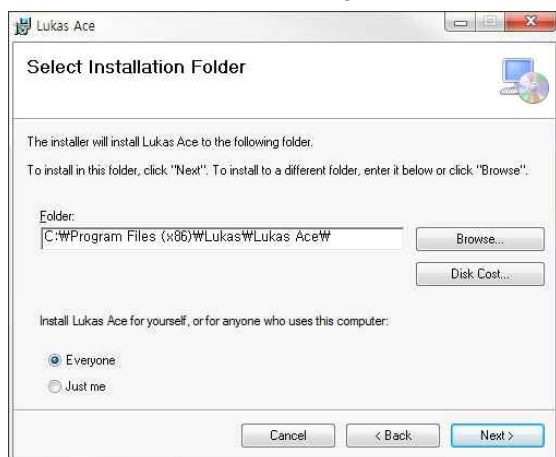
(LK-7900 Ara(without OBD function), LK-7900 Ace, LK-7500 Cuty, LK-7700 Pro, LK-7200 Cuty)

INSTALLATION OF LUKAS VIEWER

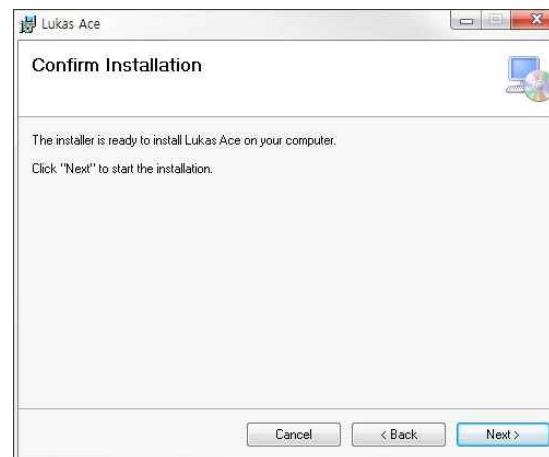
1. Run "Setup.exe" to install the viewer program.
2. When the installation start window for the viewer program pops up, click "Next".



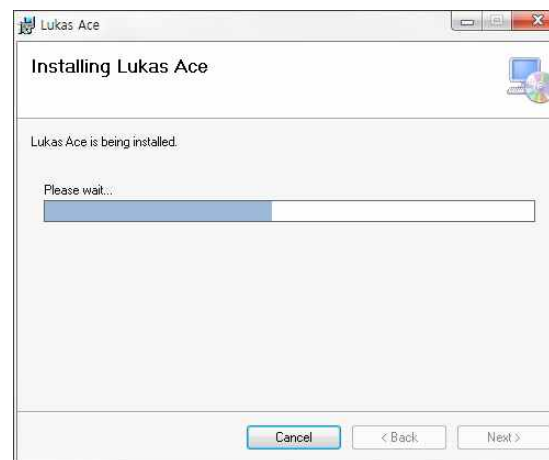
3. Select folder to install the program. Click "Next".



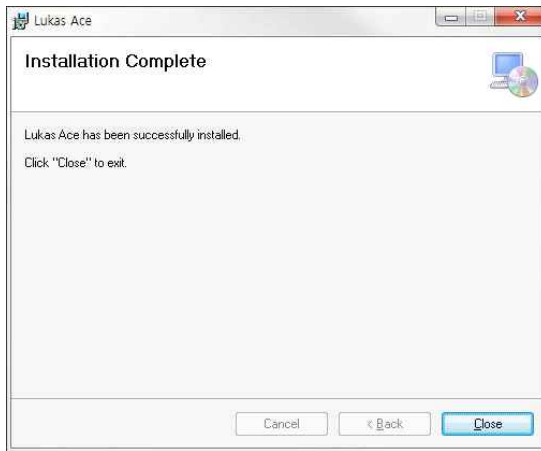
4. The installer will ask you to confirm the program installation. Click "Next".



5. The installation starts.



6. The installation of the viewer program is complete. Click "Close".



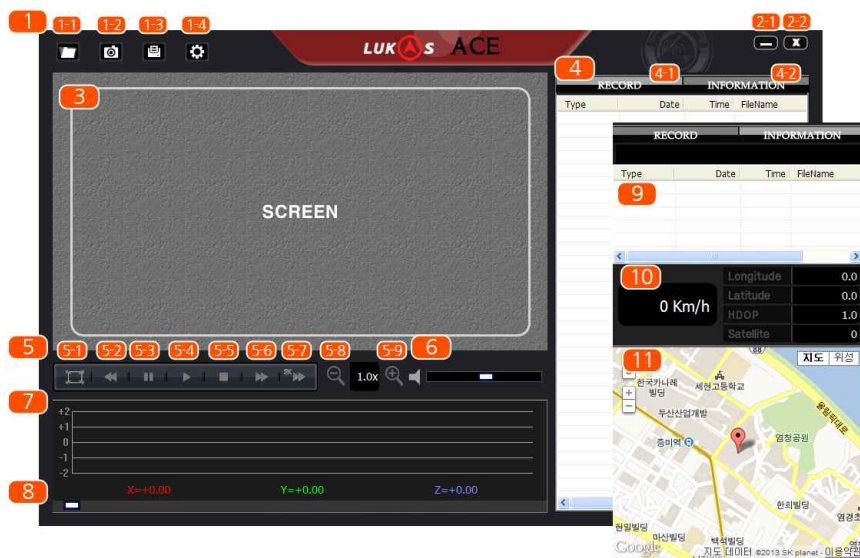
7. Double-click the viewer icon on the desktop to run the Lukas viewer.
(Viewer icon may vary from black box model)



※ Viewer installation program is stored on the memory card you purchased with the black box. And find the latest version of viewer and viewer manual at Lukas website. www.lukashd.com

INTRODUCTION TO LUKAS VIEWER

► Composition of Viewer



► GPS Map Information Screen

※ At the bottom-right of Lukas viewer, the map is presented to show the position of the driving car. Using the map, the driving position and route can be checked. (If the PC is not connected to the internet or GPS signal is weak, the map may not be visible.)

※ Map interworking is available with Internet Explorer 7.0 or higher.

※ Depending on your PC specifications, the image may be displayed unnaturally or not be played at the exact speed in multi-speed mode, or the sound may intermittently become disconnected.

※ The resolution of a Full HD image is 1920x1080p. As a general PC monitor has lower resolution than a Full HD image, it is recommended to play back in full screen mode for the optimum picture quality.

► Viewer Icons and Functions

No.	Icon	Name	Function
1-1		Open	Open video files saved in SD card.
1-2		Capture	Save the current frame as a picture file
1-3		Print	Print the image currently displayed
1-4		Settings	Environment Settings of black box
2-1		Minimize	Minimize the viewer window
2-2		Close	Close the viewer program
3	Playback Screen		Window to play the recorded video
4	File List		Window to show stored file list
4-1		Record	Show the stored file list
4-2		Information	Show file list and GPS information
5-1		Full Screen	Maximize the playback screen
5-2		Backward	Move backward 10 seconds
5-3		Pause	Pause the video
5-4		Play	Play the paused video
5-5		Stop	Stop the current video (Moves back to first clip of current video)
5-6		Forward	Move forward 10 seconds
5-7		Double Speed Play	Play the video twice as fast as normal speed
5-8		Zoom Out	Reduce zoomed in image (down mouse wheel)
5-9		Zoom In	Zoom in on the current image (up mouse wheel)
6	Sound Volume		Adjust the sound volume

7	G-Sensor (Acceleration) Graph	Display G-Sensor (Acceleration) value
8	Progression	Display the progress position of current video
9	File List	Window to display the stored file list
10	GPS Information Window	Display the information on GPS speed, latitude, longitude, GPS sensitivity and number of satellites
11	Position Information Window	Display driving position of current video through the link with GPS

► Use of Keyboard

1	Enter	Switch between full screen and normal screen
2	Space	Pause and play
3	Page Up/Down	Play previous and next file
4	Left, Right	Move back and forward 3 seconds

► Use of Mouse

1	Double-Click	Switch between full screen and normal screen
2	Wheel	To zoom in/out of the image

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BLACK BOX ENVIRONMENT SETTINGS

By selecting 'Settings' from the menu, the user can customize the setup value of the product.

1. Connect the SD card to the PC in use, and then run the viewer program.
2. Click the 'Settings' icon (⚙️) in the program menu, which can be found on the top of the viewer program, to pop open the environment setup window.

※ When changing the settings, be sure to format first and then save the setup.

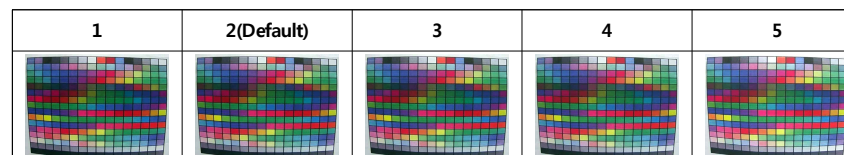
► 1) Video



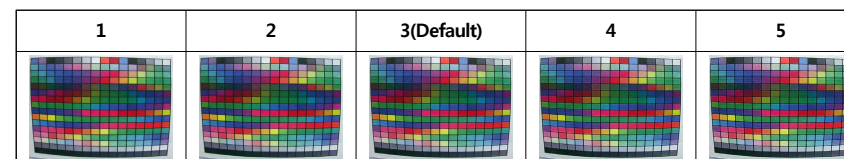
No	Name	Function
1	Video Quality	Set the quality of the video ※ The higher the quality, the bigger the image file and the less total recording time will be available.
2	Resolution	Set the resolution of the video (default: Full HD)
3	Frame Rate	Set the frame rate of the video (default: 30fps)
4	Video Settings	<ul style="list-style-type: none">Brightness: Set brightness of the imageSharpness: Set sharpness of the imageNoise Filter: Set noise filter
5	SD Card Format	Format SD Card
6	Initialize	Reset settings to default value
7	Save	Store current setting values
8	Cancel	Close the environment setup without saving

► 1-1) Video Settings (Image Configuration) - Detailed Explanation

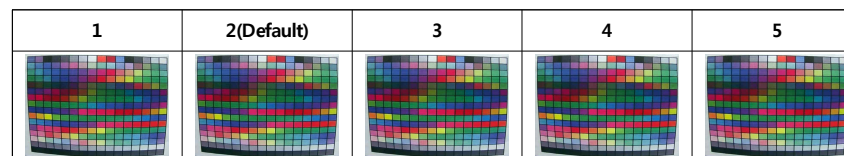
1. Brightness: Set brightness of the image.



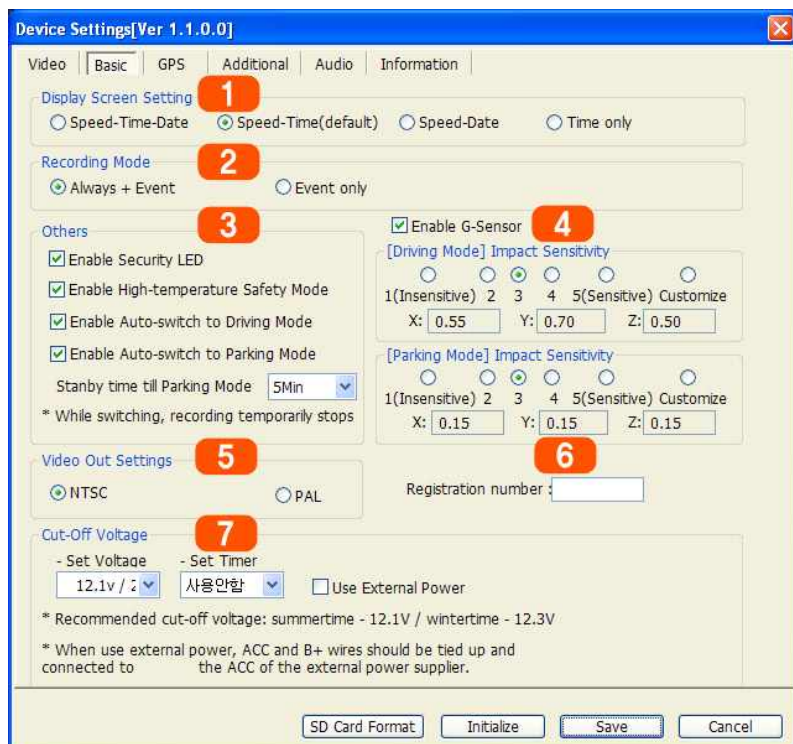
2. Sharpness: Set sharpness of the image.



3. Noise Filter: Set noise filter of the image.



► 2) Basic Functions



No	Name	Function
1	Display Screen	Setting of segment display window of black box (speed, time and date)
2	Recording Mode	<ul style="list-style-type: none"> Always+Event : Records driving and event images continuously in driving mode Event only : Records only event images in driving mode
3	Others	<ul style="list-style-type: none"> Enable Security LED : Turn on/off security LED High-temperature Safety Mode : Check to protect the black box in a high temperature environment Auto-switch to Driving Mode : Check to enable automatic change to driving mode from parking mode Auto-switch to Parking Mode : Check to enable automatic change to parking mode from driving mode Standby Time to Parking Mode : Standby time of switching to parking mode
4	G-Sensor Sensitivity	<ul style="list-style-type: none"> Check to enable G-sensor Sets up the sensitivity of G-sensor(Impact) in the range of 1~5 Separate settings of driving and parking modes Customizing user-defined value available (Input X,Y,Z values for each sensitivity)
5	Video Out	Select the video output mode of a external device to be connected
6	Input of Registration Number	Inputted 8-digit numbers and alphabet will be shown in the recorded video
7	Continuous Power Cut-off Settings	<ul style="list-style-type: none"> Set cut-off voltage or time of continuous power Tick off to enable using external power supply <p>※ LK-7200 Cuty model only</p>

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3) GPS Functions

Device Settings[Ver 1.1.0.0]

Video Basic **GPS** Additional Audio Information

* GPS function is available only from with-GPS models !!!

Weekly Alarm **1**
☒ None ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

Speed Display **2**
☒ Km/h ☐ Mph

Time Zone Settings **3**
 GMT +09:00
☐ Summer Time

GPS Speed Display(OSD) **4**
☒ ON ☐ OFF
 * Displays 'GPS' on the video when 'OFF'

Driving Route Info Saving Interval **5**
☐ None ☐ 1sec ☐ 3sec ☒ 5sec ☐ 10sec ☐ 15sec ☐ 30sec ☐ 60sec

GPS on Parking Mode **6**
☐ ON ☒ OFF

SD Card Format Initialize Save Cancel

No	Name	Function
1	Weekly Alarm	Warning alarm sounds on selected day (for weekly carfree day)
2	Speed Display	Select speed unit of GPS
3	Time Zone	Adjusts time(GMT zone) when used abroad
4	GPS Speed Display	Displays GPS speed in the recorded video
5	Saving Period of Driving Information	Sets up the period to save the driving information of vehicle into the memory of black box
6	Use of GPS in Parking Mode	Turns the GPS on/off in parking mode

4) Additional Functions

Device Settings[Ver 1.1.0.0]

Video Basic GPS **Additional** Audio Information

SD Card Capacity Settings **1**
 Always : 70% Motion : 20% Event : 10%

Motion Detector Settings **2**
☒ Enable Motion Detector
 HD Sensitivity 1(Insensitive) 2 3 4 5(Sensitive)
 Full HD Sensitivity 1(Insensitive) 2 3 4 5(Sensitive)

AE Settings(Night) **3**
☐ Low ☒ Medium(Sedan) ☐ High(SUV)

Renderer Settings **4**
☒ Enable EVR

AC Power Frequency Settings **5**
☒ 60Hz(30fps) ☐ 50Hz(25fps)

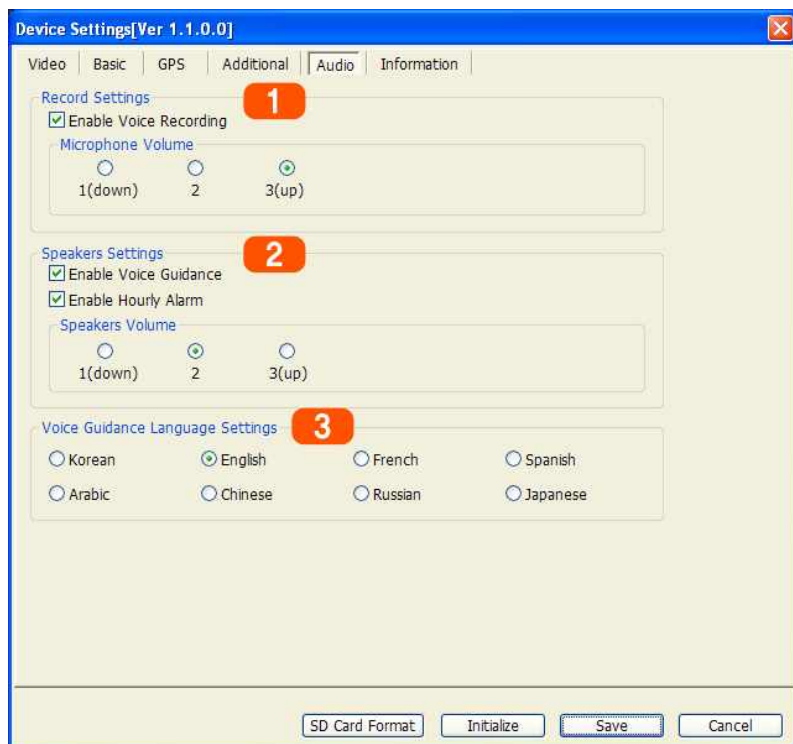
Place of Use **6**
☒ Vehicle ☐ Indoor
 * It may affect image quality if use in cars with 'Indoor' selected.

SD Card Format Initialize Save Cancel

No	Name	Function
1	SD Card Capacity	<ul style="list-style-type: none"> Sets up the ratio of saving space for Always/Event/Motion recordings ※ When changing it, format SD card first and save the setup.
2	Motion Detector	<ul style="list-style-type: none"> Check to enable motion detector Set motion detection sensitivity of Full HD or HD in the range of 1~5
3	AE (Night)	<ul style="list-style-type: none"> Sets up the adjustment of AE(Auto Exposure) Use when vehicle's number plate is hard to be identified due to strong light at night
4	EVR Option	<ul style="list-style-type: none"> Play recorded image through EVR (Enhanced Video Renderer) When playback screen is not visible, remove checkmark and restart the viewer to apply the new setup
5	AC Power Frequency	<ul style="list-style-type: none"> Function to prevent the flicker of recorded image caused by the difference in AC power frequency of each country Changing frequency will also change fps
6	Place of Use	Function to select frame rates according to the usage environment

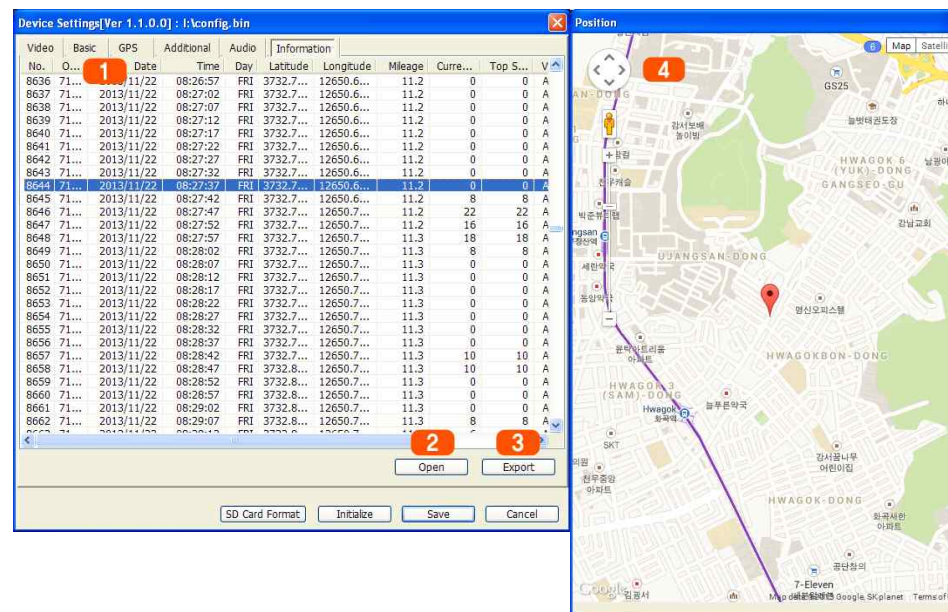
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► 5) Audio



No	Name	Function
1	Voice Recording	<ul style="list-style-type: none"> Check to enable voice recording Sets up the microphone volume
2	Speakers	<ul style="list-style-type: none"> Check to enable voice guidance Hourly alarm : Sets up the use of hourly voice notice Adjust the volume of voice guidance & warning sound
3	Voice Guidance Language	<ul style="list-style-type: none"> Select the language for voice guidance

► 6) Driving Information



No	Name	Function
1	Driving Information	Window to display the driving information list
2	Open	Click to open specific driving information data file
3	Export	Export the data in CSV format
4	Google Maps Link	Window to show the driving position. Double click the item on the list

Approx. 1,000,000 driving information data can be saved on the memory card. About 50,000 driving information is saved in one file and 20 backup files are created.

► 7) Other Detailed Explanations

• [Weekly Alarm Function]

If the user has enabled weekly alarm function, the alarm sounds on the selected day. On the selected day, the voice guidance says "Weekly carfree alarm function is activated" and blinks "dAY" on the segment display window of black box.

• [Display Screen Settings]

Settings of segment display window of black box.

a) Speed-Time-Date

While driving, speed is displayed.

When stopped, time for 20 seconds / date for 10 seconds displayed

b) Speed-Time

While driving, speed is displayed. When stopped, time is displayed.

c) Speed-Date

While driving, speed is displayed. When stopped, date is displayed.

d) Time only

Time is displayed at all times.

• [High Temperature Safety Mode]

Use this function to protect the black box in a hot environment(direct sunray higher than 70°C). Using black box in extreme conditions may influence the reliability of some parts of the product. If the temperature of the black box reaches 70°C, it temporarily stops recording. (Default: Enabled)

• [Auto-switch to Driving Mode]

This function is used to enable automatic switchover to driving mode when driving of vehicle is detected in parking mode. Remove checkmark not to use the function. (Default: Enabled)

• [Auto-switch to Parking Mode]

This function is used to enable automatic switchover to parking mode from driving mode when it detects that the vehicle has been parked. Remove checkmark not to use the function. (Default: Enabled)

• [Standby Time of Auto-switch to Parking Mode]

Standby time can be set up together with 'Auto-switch to Parking Mode'. When the pre-set time passes after the engine's off, the recording mode automatically changes to parking mode.

• [Motion Detection Setting]

※ Motion detection recording can be hindered in the environments with a frequent movement such as on the ground or in alleys, as well as places with non-uniform illumination or dim lighting.

※ To prevent a malfunction due to security LED etc, motion detector does not use 33% of lower part of the screen.

USE OF SD CARD MEMORY

<Always : Event : Motion>

- **Driving Recording** (3 minutes per recording / Approx. 215MB per recording file)

Capacity	16GB	32GB	64GB	128GB
70:10:20	49 units	101 units	205 units	413 units
80:10:10	56 units	116 units	235 units	473 units
50:20:30	34 units	71 units	145 units	294 units

- **Event Recording** (30 seconds per recording / Approx. 39MB per recording file)

Capacity	16GB	32GB	64GB	128GB
70:10:20	38 units	79 units	161 units	325 units
80:10:10	38 units	79 units	161 units	325 units
50:20:30	79 units	161 units	325 units	653 units

- **Motion Detection Recording**

(30 seconds per recording / Approx. 39MB per recording file)

Capacity	16GB	32GB	64GB	128GB
70:10:20	79 units	161 units	325 units	653 units
80:10:10	38 units	79 units	161 units	325 units
50:20:30	120 units	243 units	489 units	982 units

- ※ The abovementioned file unit numbers were calculated based on Full-HD resolution of 10Mbps. This may be different from actual use depending on the resolution and amount of image data.
- ※ The calculation above is based on the Lukas SD card, and may differ according to the type of SD card.
- ※ To ensure the stability of SD card memory, approx. 800MB of free space is needed.