



- * GUI and features may differ between software versions,
- * The rear camera is compatible only with Lukas brand dash cameras.
- Use of the Lukas rear camera with other brands may cause a malfunction which could lead to fire and/or other damages,

Thank you for choosing Lukas Dash Camera.

This manual is based on the LK-100, LK-150, LK-150(A) model. The latest firmware & manual version 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.
- X Differences in device functionally may differ depending on firmware.
- ** This product was designed as an accessory for safe driving. In the event of an accident, all responsibility is borne by the vehicle operator. Please use this product responsibly.

■ Scope of guarantee and responsibility

- ** This product is a vehicle-accessory for recording video-image and sound for the simulation of an accident, Recorded data may then be used as evidence and/or reference purpose. We cannot guarantee this product will capture all accident related material
- ** We will not be held responsible for any damages and/or data corruption or loss caused by a malfunction of this product,
- ** This product is a supplementary device for recording vehicle video-image, audio, and selective performance, Device should be used only as a reference point, as data may not always be recorded depending on the driving conditions.
- * We will not be held responsible for any damages ensuing an installation and/or usage of the device.
- * We will not be held responsible for any and all damages related to an incorrect installation of the device.

■ Device Precautions ■

- Do not expose device to direct sunlight or cold weather for extended periods of time.
 Device exposure to direct sunlight and extreme temperature may cause damage to the device.
- Do not disassemble, modify or attempt to repair the device.Any alterations or dismantlement of this product can void manufacturer's warranty.
- 3. Do not dismantle or alter the device accessories.
 - Any alterations, modifications, or attempts to repair any accessories (cigar jack cable, mount, etc.) may cause damage to the vehicle and/or the product. Any resulting damages shall be the responsibility of the user and is not covered under manufacturer's warranty.
- 4. Do not allow liquid to come into power connector.
 When cleaning the device, clean with a soft and dry cloth, Do not use liquid cleaners or volatile substance,
- 5. Do not expose the device to heavy impacts.
- Excessive impacts to this device can cause a malfunction. Handle the product with care.
- 6. Only use manufacture approved power cables and accessories. Any damages or loss to device/vehicle as a result of accessory incompatibility will not be covered under manufacturer's warranty.
- 7. We do not guarantee the safe and compatible operation of any device or accessory that is not certified by us. Our devices and accessories are designed to be used with our certified Lukas products only. We are not responsible for any malfunctions or damages as a result of product incompatibility.
- Do not operate the device for extended periods of time while the vehicle is not running, Excessive usage while vehicle is off can cause drainage to the vehicle's battery.

- Video quality may vary depending on extreme lighting conditions. Quality is subject to deterioration in extreme dark/light areas and conditions— Most notability when entering/exiting a tunnel.
- 10. Data may not be recorded if impact force of an accident is lower than the predetermined threshold. In extreme cases, the device may not record data during an accident due to possible low impact forces. In addition,
- a high force impact may disrupt power to the device and data may be lost, 11 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.
- 12. Some PCs may not support Lukas Viewer or cause disconnections in voice/image depending on the PC's specifications
- AE operations at night may vary depending on vehicle (black, red) low light reflection.
- 14. Possible frame omissions can occur due to rapid AE operational changes in low light areas. Please reset the installation angle of the device if AE operation malfunctions.
- 15. Video quality may be subject to noise when recording in poor lighting environments. 16. In the event of a sudden frame change or when switching between parking & driving modes, there may be a sudden loss of data
- 17. Motion detectors may malfunction in the event of an extreme increase/decrease to the surrounding lighting conditions of the vehicle
- 18. The motion detection function may not operate to capacity in environments with poor lighting conditions due to noise and vehicle security LED(s).
- 19. The left/right side image quality of this device may vary due to characteristics of the wide-angle lens.
- 20. Image quality may display 'flickers' of light due to ambient lighting from traffic and street.
- 21. Do not continue to use this device if a malfunction is apparent, Please contact our C/S center or your local distributor with any questions and/or concerns about this product.
- 22. Rear-view images will not be stored to capacity if the front & rear connection is improperly connected,
- 23. Image quality may deteriorate by the ambient light emitted by tail/head lights of other vehicles.
- 24. Snow, raindrops, dew, fog, ice, and other contaminants may reduce resolution and clarity.

Please clear any and all contaminants on or around the lens before each use.

■ Installation Precautions ■

- 1, We recommend cables be wrapped with cable-cover, etc. to prevent complete exposer to the outside environment after connecting the rear camera.
- Ensure connection cables are not damaged while you are wiring.
- Any damage to the cable can cause the device to malfunction and loss of data may occur.
- Ensure camera lens is clean at all times.
- Do not attempt to operate or install the device while driving.
- For your safety, please do not attempt to operate or install the device while driving to avoid a traffic accident,
- 5. Please keep the device securely mounted at all times.
- Please ensure that the device is securely mounted before operating the vehicle. This will ensure the best image quality
- and avoid distractions to the driver while in motion. 6. Install and position the device/cables to be least exposed to the outside environment (I.e. snow, rain, dew, fog, etc.). Due to the nature of being installed on the vehicle's exterior; image quality may be deteriorated.
- 7. Configure the external rear camera through the dedicated viewer before use.
- Factory default can be set at highest possible setting for LED brightness which may cause distraction to tailing vehicles.
 - * We recommend users turn off the LED while driving,
 - * We are not responsible for any disputes or damages arising from an LED remaining active.

2. Features

Vivid picture quality with dedicated sensors

Full HD: 2,1M Effective Pixel(1/2,9") Sony IMX322 Full HD Dedicated Sensor

HD: 1.0M Pixel(1/2.9") CMOS Pixel Plus HD Dedicated Sensor

▶ Distortion—free recording with wide angle lens

Full HD: 1920X1080p Full HD Recording, Max, 24/30fps

(Diagonal(approx. 130°) / Effective viewing angle: horizontal(approx. 105°), vertical(approx. 54°))

HD: 1280X720p HD Recording, Max, 30fps

(Diagonal(approx. 130°) / Effective viewing angle: horizontal (approx. 105°), vertical(approx. 54°)

- ▶ Outdoor mountable waterproof camera
- ▶ High-brightness White LED
- ► Operating temperatures : -30°C ~ 80°C (-22°F ~ 176°F)

3. Package & Part Name

■ Package Guide ■



Rear Camera



User Manual



Front/Rear Connection Cable



Adhesive Tapes (for adjustable angle model)



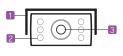
Guide Pattern (for fixed angle model)



Nut & Washer (for fixed angle model)

- Ensure all items are included in the package.
- Product package contents are subject to change depending on model and type.
- Be sure to use original package components,

■ Part Name ■



| | Name | Function |
|---|--------------|---------------------------------------------------|
| 1 | Camera Stand | Allows camera to be rotated (rotating type only) |
| 2 | Security LED | Displays dash cam operating status, gives warning |
| 3 | Camera Lens | Video signal input |

Security LED Operation

| During Continuous Recording | Motion Detection Activated | Event Taking Place | Reverse Gear While Using OBD |
|-----------------------------|----------------------------|--------------------|------------------------------|
| LED OFF | LED ON | LED ON | LED ON |

LED operation is subject to change depending on setting and/or firmware.

4. Installation

■ Precautions ■

- ** Before installation, park your vehicle on a flat surface and an area with normal lighting exposure, Turn off the engine and remove the key from the ignition (Be sure parking brake is ON).
- ** We recommend cables be wrapped with cable—cover, etc. to prevent complete exposer to the outside environment after connecting the rear camera.
- *Always keep the lens of the device clean to ensure the best picture quality.
- *Be careful that connection cables not be cut while you are wiring.
- **Configure the external rear camera through the dedicated viewer before using the product.

■ Installation Steps ■

Select a location on the vehicle that is not causing obstruction to the license plate numbers.



- 2 Using the two-sided adhesive tapes or the nut & washer; install the camera onto the exterior of the vehicle.
 - It may be necessary to reposition or hole-punch the license plate depending upon the vehicle.





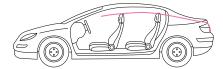
(Fixed angle type)

Cable-groove (Adjustable angle type)

3 Connect front camera and rear camera using connection cable.



4 Embed cable along pillar



* Installation complete





5. Viewer / GUI Settings





(Viewer)

- * Open your existing device viewer then select 'External Rear' from basic functions,
 - Viewer: Settings > Select 'External Rear' from basic functions or additional functions
 - LCD: Settings > Select 'External Rear' from additional functions
- ** When the external rear-view camera is selected, LED will activate only when a motion or event is detected during parking mode,
- ** Lukas viewer can be found on the SD card(s) that come with your product.
 You can download the Lukas viewer at any time from our website (www.lukashd.com),
- ** Depending upon the type or performance of a PC; loss of picture, change in playback speed, loss or omission of sound, etc. may occur during playback.

6. Specifications

| Item | Specification | Remark |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Camera | HD: 1,0M Pixel(1/2,9") CMOS Pixel Plus HD dedicated sensor Viewing Angle Diagonal (Approx.130") / Effective viewing angle: horizontal (Approx. 105"), vertical (Approx. 54") LK-100: 1280×720p(HD). 30fps | |
| Viewing Angle | | |
| Recording Resolution & Frame | | |
| Power | | |
| Temperatures | Operating : $-30^{\circ}\text{C} \sim 80^{\circ}\text{C} (-22^{\circ}\text{F} \sim 176^{\circ}\text{F})$ Storage : $-40^{\circ}\text{C} \sim 90^{\circ}\text{C} (-40^{\circ}\text{F} \sim 194^{\circ}\text{F})$ | |
| Size/Weight | Fixed Type: 44 X 53 X 31 (mm), 63g (cable length: 2M) Rotating Type: 69 X 35 X 40 (mm), 100g (cable length: 2M) | Including cable weight |

| 7. MEMO | | |
|---------|------|--|
| | | |
| | | |



Quality Assurance

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

- A standard 1-year warranty is provided from the date of purchase.
 However, a 6-month warranty is provided for accessories, including memory card.
- 2. This product has undergone strict quality control and inspection procedures.
- 3. Be sure to bring warranty when you request repair service.
- 4. This user manual acts as warranty and will not be re-issued. Take extra care keeping the manual safe.
- 5. We are not responsible for any costs incurred to install or uninstall the product, regardless of warranty status.

