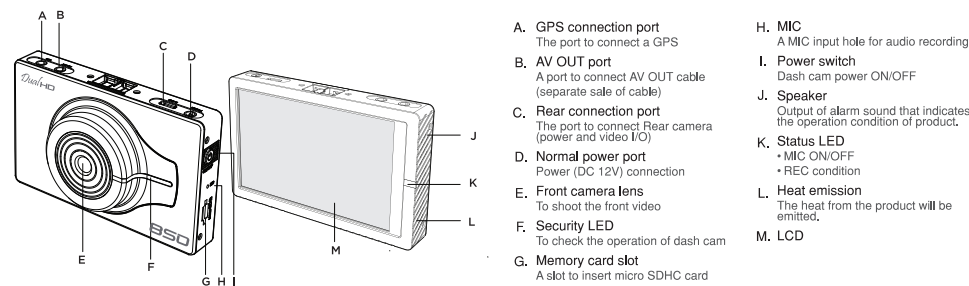


B 850

SIMPLE INSTALLATION
LONG LIFE CYCLE_Memory Card
LDWS_Lane Departure Warning System
4.0 INCH IPS LCD
FORMAT FREE_Memory Card
AFR SYSTEM_Auto File Recovery
LOW POWER CONSUMPTION

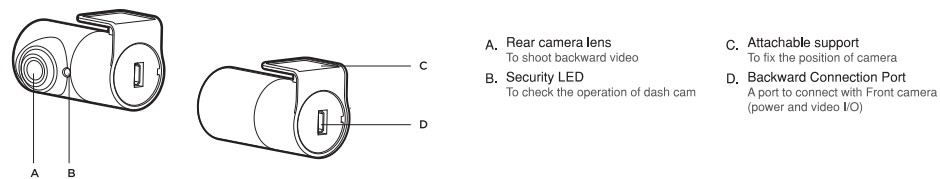
USER QUICK START GUIDE

Part Name - Front Camera



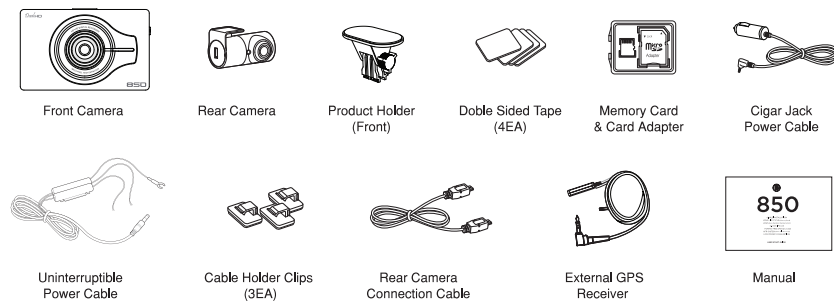
Part Name - Rear Camera

The terminal that connects the rear camera cannot be connected to any other device.
If micro USB cable except for rear only cable to rear connection port, it may cause the damage.



Package Components

The components may be subject to change without prior notice to enhance the product's performance or quality.



※ Make sure to connect the package components using the authentic cables provided by HID Solution Co., Ltd.
Memory cards are consumable parts. They need to be frequently replaced after being used for a long time.
(The company provides a warranty for 6 months after the date of purchase.)

Thank you for purchasing product from HID Solution Co., Ltd.

Warranty and Support
Our official website is at <http://www.hidsolution.com>.
Get firmware updates and download the User Manual from our official website.
HID Solution makes no warranty, either implied or otherwise, as to sales activities, or the appropriateness thereof, other than those permitted by the company.

Copyright and Trademark
All the information contained in this Manual is protected under the Copyright Act.
HID Solution retains all rights to the program, which are protected under the Copyright Act.
This Manual was prepared on the basis of the current product specification, and the examples, tables and charts, illustrative images, detailed features of the product, and its hardware and software requirements may be subject to change without prior notice.

Product Overview
This product is an assistive device installed in automobiles to record driving video data.
Depending on the car's state or driving conditions, some features may not be supported. The device also does not guarantee all events are recorded. If an accident occurs due to a shock, which is too great to be detected by the built-in shock sensor, the accident may not be recorded.
The Warranty is issued at the time of purchase of the product and is not re-issued.

Equipment for Office Use (Class A) (Broadcasting and Communication Equipment for Office Use)
Sellers and Users must note that this equipment is for office use (Class A) and certified with a radio waves suitability registration, and the equipment is intended for use in areas other than homes.

1. Name of apparatus (model name) : 850
2. Name of certified company : HID Solution Co., Ltd.
3. Date of manufacture : Indicated on the packaging box.
4. Manufacturer/Country of origin : HID Solution Co., Ltd. / Republic of Korea

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to insure compliance.

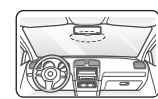


Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

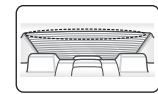
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Set-Up

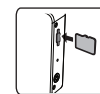
The actual product may vary from the images shown.



Select where to install front camera
Recommended to install behind room mirror on the top of front window of vehicle.

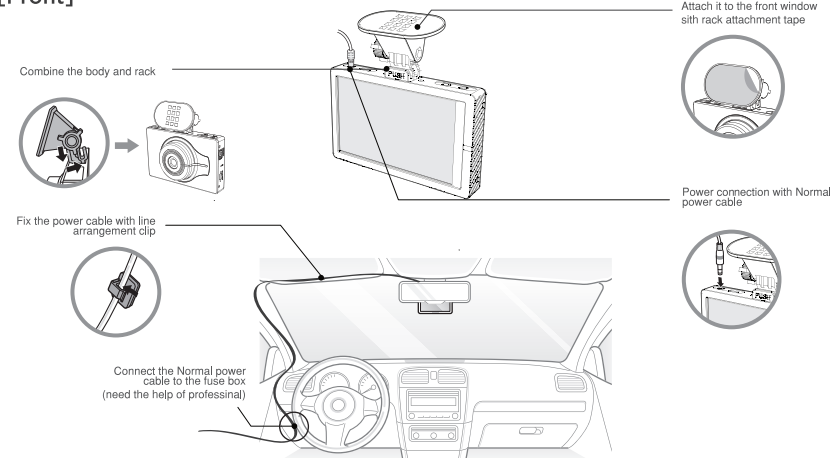


Select where to install rear camera
Recommended to install on the top of rear window.

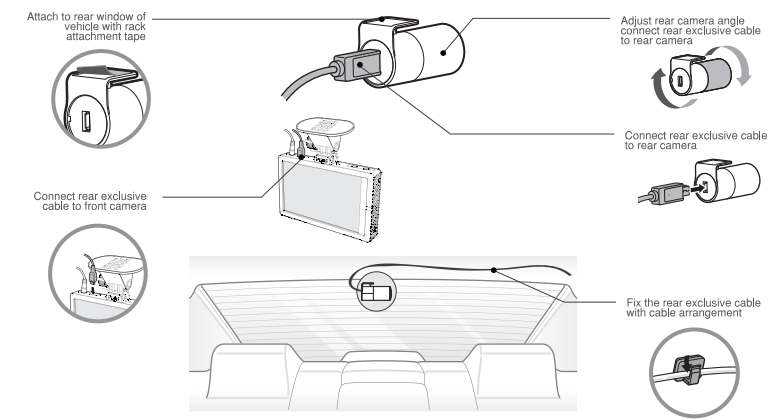


Insert a micro SDHC card

[Front]



[Rear]



Specifications

Item	Standard	Remarks
Model name	BCH-850	
Size/Weight	(F) 105 x 65 x 27mm, 100g / (R) 52 x 24 x 24mm, 25g	Weight not including cable and rack (Rear camera includes rack)
Support capacity	micro SDHC 16/32/64/128GB (up to 128GB)	MLC Class 10 & above
Recording method	Normal recording Impact detection recording Manual Recording Parking recording (Recording when impact detection and motion detection)	(F) HD 720p@30fps (R) HD 720p@30fps
Lens	HD wide angle lens	4 Glass with IR Cut Filter(F/R)
Image sensor	High Quality CMOS Image Sensor	Front HD (no.of valid pixel 1280x720) / Rear HD (no.of valid pixel 1280x720)
View angle	(F) opposite angle 128° / horizontal 101° / vertical 80° (R) opposite angle 128° / horizontal 101° / vertical 80°	
Video	(F/R) HD 720p@30fps	
Encoding	Image : MPEG-4 AVC / Voice : PCM	AVI
Voice	Microphone embedded	
Speaker	Speaker embedded	8ohm
Accelerator Sensor	3-axis	+2g / -2g
Input power	DC 12V 3A	
Battery	Super capacity	
Power consumption	Average 3.5W / MAX 4.5W	2ch, basis
Operating temp./ Storage temp.	Operating temp. -10℃ ~ 60℃ / Storage temp. -20℃ ~ 70℃	
Interface	Normal power (POWER), rear camera (R-CAM), external GPS, image output (AV OUT) connection port	
Output method	NTSC	
Others	Security LED, Power On/Off, LDWS, Format Free	

Warranty

This product has been delivered for domestic use within the Republic of Korea after having passed strict quality management and inspection. If any defect in workmanship or natural failure occurs during the warranty period, the company provides warranty service according to the information contained in the Warranty below.

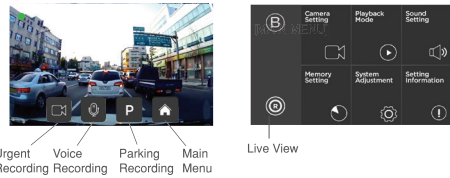
Model Name		
Product Serial Number		
Warranty Period	Body	1 year
	All accessories (consumables)	3 months / Memory card- 6 months (See the information contained in the Warranty)
Date of purchase	year month day (Purchase Place :)	

BLACKCAM CS/AS CENTER

1806 18F, DAERYUNG POST TOWER 5-CHA, DIGITAL-RO 9-GIL, GEUMCHEON-GU, SEOUL
☎ 82-1899-5448 blackcam@hidsolution.com
<http://www.hidsolution.com>

Starting the Product

[LIVE VIEW]



- When booting, you can select one from Front / Rear / PIP / Clock View
- For driving mode, you can select one from live view / LCD OFF (after 1 min. / after 3 min.)
- When you touch the area out of menu button on the bottom, it will be converted in the order of Front screen > Rear Screen > PIP > Clock Screen

[CONVERSION OF LIVE VIEW - Driving Mode]



Recording While Driving

Impact sensitivity can be set as [menu ▶ system adjustment ▶ sensitivity setting]



Normal recording
When booting is completed, it will be converted to Normal recording mode. The recorded file will be saved in normal folder in memory card.

Front, Rear Camera Setting

Front camera_Frame
You can change the frame and bitrate of front camera.

Front camera_Brightness
You can set the brightness of front camera.

Rear camera_Frame
You can change the frame and bitrate of rear camera.

Rear camera_Brightness
You can set the brightness of rear camera.

Installation Position
You can set the reverse image depending on the installation position of rear camera.

Night Image Brightness
You can set the brightness of the recorded images.

Contrast Adjustment
You can set the contrast of the recorded images.

Definition
You can set the definition of the recorded images.

System Setting

Parking recording setting
to change the setting of Parking recording.

Sensitivity setting
To set the function of parking motion, parking impact, driving impact sensitivity.

Display
To change the screen setting

Time setting
To set the time

LDWS
To set the lane departure warning system.



Impact detection recording
When an impact is detected in normal recording mode, the mode will be converted to impact detection recording mode. Based on the point of impact occurrence, the video for total 35 seconds from before 5 seconds to after 30 seconds will be saved in event folder of memory card.



Urgent recording
Press urgent recording button and the button will be changed with red and the mode will be changed to urgent recording mode. Total 35 seconds from before 5 seconds to after 30 seconds will be recorded and the recorded file will be saved in the camcorder folder of memory card.

Recording While Parking



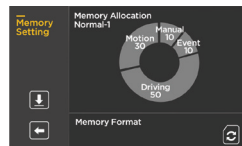
Parking mode
When you stop the vehicle (ACC power shutdown), the mode will be converted to Parking mode after 3 seconds, and when you start the engine again (ACC power connection), the mode will be converted to normal recording mode.

Impact detection recording
When impact is detected at parking detection mode, the detection recording starts (before 5 sec./after 30 sec, total 35 second). The recording file will be saved in event folder of memory card.

Motion detection recording
- When a motion is detected in the view range, the recording will start. (before 5 seconds / after 30 seconds, total 35 seconds)
- The recording file will be saved in parking folder of memory card.

Memory Setting

[menu ▶ memory setting] to change the setting
Micro SDHC card format – to format the activated memory card



For driving video, available to select the memory range according to operation environment of driver by dividing into Driving, Motion and Impact.

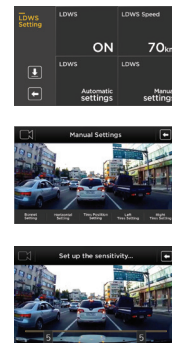
Mode	Motion	Driving	Event
Normal 01	30	50	10
Normal 02	40	40	10
Driving Preference	20	50	20
Parking Preference	60	20	10
Event Preference	40	30	20

The range of video that is recorded by recording mode and storage folder are as follows.

Mode	Storage Time	Storage Folder Name
Resolution	Front : 1280 x 720p,30fps / Rear : 1280 x 720p,30fps	
Driving Recording	Normal	Total 60 sec. / Normal
	Impact Detection	Before 5 sec. / After 30 sec. / Total 35 sec. / Event
Parking Recording	Motion Detection	Before 5 sec. / After 30 sec. / Total 35 sec. / Parking
	Motion Detection	Before 5 sec. / After 30 sec. / Total 35 sec. / Manual

LDWS

[menu ▶ system setting ▶ LDWS] to adjust the alarm of lane departure warning system



LDWS Setting ON / OFF
Warning Sound Beep Sound
LDWS Speed 60km / 70km / 80km

Auto Setting
- For the first setting of LDWS, be sure to set the bonnet.
- After bonnet setting, the sensitivity setting will be proceeded automatically.
- After completed, automatically return to the previous page.
- In case of auto setting, it will take some time according to the condition of lane (within 5 seconds)

Manual setting
- Bonnet setting : sets the bonnet line of vehicle.
- Horizontal setting : sets the horizontal line.
- wheel location setting (left) : Wheel setting (right) : adjusts sensitivity according to the wheel location (left/right)

- *Note**
- For LDWS function, auto setting is recommended.
 - Easy to use as LDWS is connected with GPS
 - As warning is not available according to ambient environment or weather, or there may be wrong warning, the cars of driver should be taken.
 - For the safety, set after parking.
 - For smooth setting, set in the place that lanes are seen visibly

Main Menu

- Camera setting**: To change the setting of camera
- Playback mode**: To check the recorded video
- Sound setting**: To change the setting of speaker volume, voice recording, event notice
- Setting information**: To check the current setting value
- System Setting**: Set Parking, Display, Sensitivity, LDWS
- Memory setting**: To change the memory setting or format
- Live View**: Return to Live view shooting mode

Sound Setting

[menu ▶ Sound Setting] to change the sound setting.

Speaker
You can change the speaker volume setting.

Voice Recording
You can set the voice recording.

Event Notification
You can set the event notice. The sound of event notice is "Ttiro ring ttiro ring." Event notice is operated when a shock is detected.

Play Mode / Setting Information

Play Mode
[menu ▶ play mode] to check the recording videos

- 4 video lists for each page is displayed. Select the corresponding file and the corresponding recording video will be played.
- Press this button to move to next page
- Press this button to skip 3 pages
- Press this button to store the desired video separately
- Press this button to play the next file
- Press this button to save the file in Myfolder
- Press this button to convert forward/backward
- Use the round button of play bar to move to the desired section

Setting Information
[menu ▶ setting information] to check the current setting status

- [menu ▶ setting information] available to initialize with basic setting value.
- When changing the basic setting value, the basic data will be deleted and rebooted.