

DASH CAM

BP 4.5 - FHD

2" IPS Display | Dual 1080P | Front & Rear



Enjoy it.

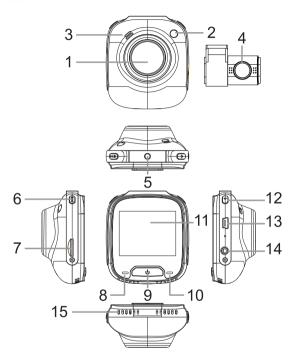
CAUTIONS

- Set correct time in System Menu before first use.
- Please insert a mSD card in the right direction to avoid damage to the card slot in the DVR. If DVR shows error message, please format the mSD card from DVR menu. Please reset DVR or change mSD card if similar error occurs.
- Note: All files will be deleted when formatting mSD card, please backup important files before formatting the mSD card. When reset function is selected, the settings will return to default setting.
- Please do NOT plug or unplug the rear-view camera while BP 4.5 is ON. Incorrect operation
 can lead to the damage to the cameras.
- It is recommended to use mSD card CLASS 10, UHS 3 speed or above. Not all mSD cards behave the same as their specifications may vary. Please test mSD compatibility before purchasing mSD card.
- It is recommended to backup important file recordings once a week to avoid files being overwritten. Please format mSD card once every month for recording stability.
- The last file will be lost if the mSD card is removed from DVR while in ON condition or if the power to the DVR is interrupted.
- Please ensure the provided holder (mounting bracket) is installed correctly and firmly on windscreen to avoid damage to DVR.
- Battery life-span will continuously decrease upon usage. Please charge battery once every
 month to preserve battery life in the event the device is not used for long period.
- Please do not use DVR in wet or damp environment as this DVR is not waterproof/water resistant.
- Please do not record or take pictures directly facing sunlight.
- To obtain clear image, please clean windscreen and DVR lens regularly. Avoid using DVR in a
 dusty environment.
- Please handle DVR with care and avoid direct impact to DVR. Also, this DVR may malfunction when used in a high electromagnetic environment.
- Operating temperature of DVR is -20°C to 65°C, storage temperature is -20°C to 70°C. Continuous
 exposure to sunlight, especially when locked in-cabin temperatures can exceed 70°C. This may
 cause the DVR to malfunction, change color, cause housing&image distortion.

Disclaimer:

- In no event shall Blaupunkt be liable for any direct, indirect, punitive, incidental, special
 consequential danger, to property or life, improper storage, whatsoever arising out of or
 connected with the use or misuse of our products.
- This device is NOT intended to be used for illegal surveillance purposes and shall not be used in any form as evidence for claim purpose.
- Some countries prohibit drivers from mounting anything on the windshield, or restrict
 mounting of DVR's to specific areas of the windshield. It is the owner's responsibility to mount
 the DVR in compliance with local laws.
- Error messages may appear depending on the environment it is used in and in when there's low battery voltage in the vehicle.
- Blaupunkt is not liable/responsible for non-recording events, missing files, ect.

Structure



- Front Lens
- 2. Fill Light
- 3. Speaker
- 4. Rear-view Camera
- 5. Mounting Hole
- 6. UP/MENU Key
- 7. Micro SD Card Slot
- 8. Charging Indicator Light
- 9. Power/OK/REC Key
 - 10. Recording Indicator Light
- 11. IPS Screen
- 12. DOWN/MODE Key
- 13. USB Power Port
- 14. Rear-view Camera Port
- 15. Internal Heat Dissipation Provision

Operation

Mode	Number	lcon	Key	Action	
Video Mode	9	ს	Power/OK/REC Key	Long press to power ON/OFF; Short press to start/pause recording	
	6	<u>M</u> △	UP/MENU Key	Long press to enter /quit video settings; Short press to switch between the front and rear-view camera	
	13	∇	DOWN/MODE Key	Long press to select from Video Mode/ Photo Mode /Playback mode; Short press to turn ON/OFF audio recording	
Photo Mode	9	<u></u>	Power/OK/REC Key	Long press to power ON/OFF; Short press to take pictures	
	6	<u>M</u>	UP/MENU Key	Long press to enter /quit Photo settings Short press to switch between the front and rear-view camera	
	13	∇	DOWN/MODE Key	Long press to switch among Video Mode/Photo Mode /Playback Mode	
Playback Mode	9	ს	Power/OK/REC Key	Long press to switch among DCIMA, DCIMB and LOCK FILE folders; Short press to play/pause files	
	6	<u>M</u> △	UP/MENU Key	Long press to enter /quit Playback settings; Short press to go to the previous file	
	13	∇	DOWN/MODE Key	Long press to switch among Video Mode/Photo Mode /Playback Mode; Short press to go to the next file	
	9	ს	Power/OK/REC Key	Long press to power ON/OFF; Short press to confirm	
Menu Setting	6	<u>M</u> △	UP/MENU Key	Long press to enter/quit settings; Short press to go to the previous item	
	13	∇	DOWN/MODE Key	Long press to switch among Video Mode/Photo Mode /Playback Mode; Short press to go to the next item	

Note: Please note all actions take effect only when the DVR in standby mode.

Function

Key Features

- 1. Zinc alloy metal housing
- 2. 2.0" IPS screen with better display quality
- Full HD 1080P front & rear cameras recording
 Full HD 1080P rear-view camera installed on the back window
- 5. Photo capture, Playback, Automatic Recording with ignition turn on
- 6. Supports G-sensor, Motion Detection and Loop Recording
- 7. Car numbers display in the video
- 8. Supports Parking Monitoring
- 9. Fill light for night vision enhancement
- 10. CE & ROHS certified

A. On/Off

1. Power ON

Long press $\mbox{$\psi$}$ Power key to switch ON DVR and enter video mode. Short press the same key to start recording. When the DVR is connected to the 12V charger in the vehicle, it will AUTO commence recording when the ignition is turned ON. Once the ignition is turned OFF, the DVR will automatically save the last file and shut down in 10 seconds.

Note: Upon turn ON, the display screen will show 'PLEASE INSERT SD CARD' in case a mSD card is not inserted. Please insert mSD card once the DVR is in OFF condition

2. Power Off

Long press vartheta the power key to switch OFF DVR while it is in either STANDBY or ON mode.

Note: When the built-in battery is close to being drained out, the DVR display will show a 'Low Battery' warning and switch OFF. It automatically saves the last file before it shuts down in 10 secs.

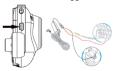
B. Battery Charging

With 12V car charger (provided)



Note: While the DVR is plugged into the 12V charger, the charging indicator will glow a steady RED. Once it is fully charged, the charging indicator will switch OFF.

With 3-lead auto trigger hardwire kit (optional)



Note: The 3-lead auto trigger hardwire kit is connected with car battery or fuse box power to uninterruptedly supply power for BP4.5 DVR for 24 hours, even if when the car is turned off. If the voltage of the car battery drops to 11.8V or 23.5V, the hardwire kit will cut off the power supply to ensure enough power to start the car.



C. Inserting mSD Card

It is recommended that while inserting the mSD card into the provided slot, no force is to be applied. Once it is determined that the mSD card has been inserted the correct side, we suggest that the card be pushed down till it locks into position in the slot.

Removing mSD card: Briefly push down on the top of the mSD card until it is released from it's locked position and then pull it out (It is suggested to remove the mSD card when the DVR is in OFF mode)

D. Video

Power ON DVR to enter into video mode, it starts to record with two cameras automatically. The in dicator light will be steady blue when connected to the 12V car charger. Press υ OK/REC key to stop recording and save the last file. The DVR goes into standby mode with the blue indicator light off. In standby mode, short press υ OK/REC key to restart recording.

Invideo mode, short press ∇ DOWN/MODE key to turn ON/OFF sound recording. Check icons $\stackrel{\square}{\mathbb{Q}}$ and $\stackrel{\square}{\mathbb{Q}}$ displayed on the screen. Long press $\stackrel{M}{\mathbb{Z}}$ UP/MENU key to go to video settings.

F Front and Rear-view Camera Switch

In the Standby mode, short press $\frac{M}{\Delta}$ UP/MENU key to switch between the front and rear-view camera to take videos or pictures. There are 4 options in the video mode-Front camera in full screen display, rear-view camera in full screen display, picture in picture and half in half screen display.



Front camera in full screen display



Front & rear camera half by half



Rear camera in full screen display



Front & rear camera picture in picture

F. Photo

In the photo mode, long press $\frac{M}{\Delta}$ UP/MENU key to go to photo settings.

G.Playback and Delete

In video Standby mode, long press ∇ DOWN/MODE key twice to enter into playback mode. Short press $\frac{M}{N}$ UP/MENU and ∇ DOWN/MODE key to select the file and then press $\mathbf U$ OK/REC key to start or pause playback. Long press $\mathbf U$ OK/REC key to switch among DCIMA, DCIMB and LOCKFILE folders to view videos and photos. If you want to delete a file, long press $\frac{M}{N}$ UP/MENU key to enter into the menu. Select from File delete, Protection and Slide Show options. Long press $\frac{M}{N}$ UP/MENU key to go back to previous menu.

Note:

Please Long press DOWN/MODE key to exit Playback mode first and then long press UP ower key if you want to switch off DVR while in playback mode. Protection will lock/unlock a file manually. Once the file is locked, It won't be overwritten In loop recording and can only be deleted manually.

H. G-Sensor

In case of emergency braking or a collision, the G-sensor will be activated to save and protect the current video clip from being overwritten automatically and will be shown with a key and G-sensor icon with that appears at the top middle of the screen. Three setting options are available (High. Medium & Low). Medium is recommended.

I. Motion Detection

In video standby mode, long press $\frac{M}{\Delta}$ UP/MENU key to go to the video menu and turn on motion detection. When DVR detects a moving object, it starts to record automatically. If there is no movement in front of the front lens for 20 seconds, DVR will stop recording automatically and go into Standby mode until the next movement is detected.

When motion detection ON is selected, the icon 2 is displayed on the screen. Short press 0 OK / REC key while in recording mode to turn OFF motion detection.

J. Parking Monitoring

Parking monitoring is for security monitoring while the vehicle is parked with the built-in battery supplying the power.

Once Parking Monitoring ON is selected in the video menu, the screen will display the icon \bigcirc . Once the vehicle ignition isturned OFF, the DVR will power OFF. In case the DVR detects any vibration, it will power ON to record for 30 seconds automatically with a key icon \bigcirc displayed at the top middle of the screen and then power OFF. If there is continuous vibration, DVR will turn on again to record for 30 seconds until the built-inbattery is drained completely. All locked videos created by Parking Monitoring mode will be available in the LOCK FILE folder in the mSD card and not be overwritten while the DVR is in loop recording.

If Parking Monitoring option is kept ON while the vehicle ignition is ON and the car charger provides the power, only the first video file will be locked.

K. Car Number Display

Long press $\frac{1}{8}$ UP/MENU key to set Car Number Display ON in the video menu. There are a total of 10 digits that can be entered. Select ∇ DOWN/MODE key to enter numeric information '0-9' and 'A-2' for every digit. Once the correct information is entered, press $\frac{1}{9}$ UP/MENU key to exit settings.

Note: If Date Stamp is set to OFF, Car number will not display on the screen and video even if Car Number is set to ON

L. Parking Mode

Note: BLAUPUNKT's custom-designed 3-Lead Hardwire Kit is required to use this new feature. You can contact us to purchase separately.

OPTIONS:Off/Time Lapse Record & G-sensor/Motion Detection & G-sensor

Time Lapse & G-sensor: (See how this feature works)

- $1. Before this feature is set ON, \textbf{BLAUPUNKT} 's \ 3-Lead \ Hardwire \ Kit should be installed properly.$
- 2. Then you turn OFF the car's engine and turn the key to the lock position.
- 3.The camera will STOP the loop video recording and it will go into the time lapse recording mode automatically, but the screen will be off after some seconds.
- 4. Now while this time lapse is being recorded, if someone hits your car and if the impact reaches the presetting G-sensor level, the camera will stop the time lapse recording and start to record 1 minute continuous video instead, save and lock that video in the LOCK FILE folder. Then it returns to time lapse recording again.
 - **Note:** Time lapse recording is default as 1fps which allows you to capture 1 image per second. So when you combine and play those images at the normal 30fps rate, everything seems to be moving faster in time lapse.
- 5.Now when you start your car for the next time, the camera will automatically STOP the time lapse record& G-sensor parking mode. Then it will go back to the normal recording automatically.

Motion Detection & G-sensor: (See how this feature works)

- 1. When this feature is set ON, **BLAUPUNKT**'s 3-Lead Hardwire Kit should be installed properly.
- 2. Then you turn OFF the car's engine and turn the key to the lock position.
- 3.The camera will STOP the loop video recording and it will go to motion detection mode and the camera will stay ON and idle, but the screen will be off after some seconds.
- 4. Now the camera will only record video when it detects motion in front of the FOV of the camera and then it will record until there is no more motion is detected.
- 5. Now while the camera stays in Motion Detection mode, if someone hits you car and if the impact reaches the presetting G-sensor level, the camera will stop the motion detection mode and start to record 1 minute continuous video instead, save and lock that video in the LOKC FILE folder. Then it returns back to motion detection mode again.
- 6.Now when you start your car for the next time, the camera will automatically STOP the motion detection & G-sensor parking mode, and it will go back to the normal recording automatically.

M.Parking Mode Timing

Note: BLAUPUNKT's custom-designed 3-Lead Hardwire Kit is required to use this new feature. You can contact us to purchase separately.

This feature allows you to set a duration for Parking Mode. In Parking Mode, the camera will go into Time Lapse Record & G-sensor or Motion Detection & G-sensor Mode. When time is out, the camera will power OFF to avoid draining the car battery out. However, if the camera detects a collision, it will power ON again automatically and record 1-minute video, save and lock that video in the LOKC FILE folder.

OPTIONS:

- Off
- 12 Hours
- 24 Hours
- 48 Hours

Note: If Off is selected, the DVR will stay in the Parking Mode until when the hardwire kit cuts off power supply when the voltage of car battery reaches 11.8V or 23.5V.

SYSTEM MENU

In Standby mode, long press $\frac{L}{\Delta}$ UP / MENU key twice to enter into system menu. Press $\frac{L}{\Delta}$ UP / MENU key and \bigcirc DOWN / MODE key to select the item and press $\frac{L}{\Delta}$ OK / REC to confirm. Long press $\frac{L}{\Delta}$ UP / MENU key again to exit

	Mode	Category	Sub-Category	Default
		Resolution	1080P 1920X1080 720P 1280x720 VGA 640x480	1080P 1920X1080 (front & rear- view camera)
		Loop Recording	Off/1min / 3mins/5mins	1min
		HDR	Off/On	Off
	Motion Detection Off/On		Off/On	Off
Menu	Video	1		On
M	Mode	Date Stamp	Off/On	On
		G-sensor	Off/Low/Medium/High	Medium
		Parking Monitoring	Off/Low/Medium/High	Off
		Car Number A-Z, 0-9 Car Number Display Off/On		
				Off
		Parking Mode	Off/Time Lapse Record&G-sensor/ Motion Detection& G-sensor	Off
		Parking Mode Timing	Off/12 Hours/24 Hours/48 Hours	Off

	Mode	Category	Sub-Category	Default
		Capture Mode	Single Shot/2s timer/5s timer/ 10s timer	Single
		Resolution	12M/10M/8M/5M/3M/2M/1M/VGA	12M
		Burst	Off/On	Off
		Quality	Fine/Normal/Economy	Fine
	li	Sharpness	Strong/Normal/Soft	Normal
	Photo	White Balance	Auto/Daylight/Cloudy/Tungsten/ Fluorescent	Auto
	Mode	Color	Color/Black&White/Sepia	Color
		ISO	Auto/100/200/400	Auto
		Exposure	-3~+3	0
Menu		Steady Shot	Off/On	On
		Quick Preview	Off / 2sec / 5sec	Off
		Date Stamp	Off/On	On
	Playback	Delete	Delete Current/Delete All	
		Protection	Lock Current / Unlock Current / Lock All / unlock All	
		Slideshow	2sec/5sec/8sec	2sec
	System Menu	Screen Saver	Off/1min/2mins/3mins	Off
		Auto Power Off	Off/1min/3mins/5mins	Off
		Frequency	50HZ / 60HZ	50HZ
		Beep Sound	Off/On	On
		Language	English	English
		Date/Time	DD/MM/YYYY	DD/MM/YYYY
		Fill Light	Off/On/Auto	Off
		Format	cancel / ok	
	[Default Setting	cancel / ok	
		Version	Current Software Version	

MASS STORAGE

Video&Photo Download

The Red power indicator will light up when the DVR is connected to the computer via a USB cable. Once the DVR is connected to a computer, the screen will prompt two options for usage selection - **Mass Storage** and **REC Mode.**

Mass Storage

- The screen will turn blank with a U disk icon when Mass Storage is selected. The DVR will allow the computer to access files in mSD storage.
- There are three folders options in mSD card-DCIMA, DCIMB and LOCK FILE.
- DCIMA is the file folder for videos from the front camera.
- DCIMB is the file folder for videos from rear-view camera.
- LOCK FILE is the file folder for locked videos created by G-sensor, Parking Monitoring and Parking Mode.

REC Mode

The DVR will work normally when REC Mode is selected. Video recording and photo capture are available in this mode.

INSTALLATION INSTRUCTION

- 1. Turn off the car engine.
- 2.Insert a mSD card into the card slot of DVR.

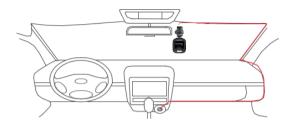
Note: An SD card up to 128GB Class 10, UHS 3 speed is required and please format the mSD card from the menu before first use.

- 3.Clean the windshield with a dry cloth first.
- 4. Screw the mounting holder into the DVR and peel off the film of the mounting holder, and then attach the mounting holder to the windshield, making sure there is no air inside.
- 5. Adjust the DVR to get a good viewing angle (1/3 viewing angle towards the sky is the best one, as shown in the picture).



6.Plug the car charger into the DVR and cigarette lighter.

7. Hide the extension cord of the car charger as the picture shown:



- 8.Connect the rear-view camera to the DVR and check if the rear-view camera works correctly.
- 9.Install the rear camera.
- Clean the back windshield with a dry cloth first.
- Peel off the film and stick the rear-view camera to the center of the back windshield.
- Adjust the viewing angle to make sure the car in the back can be visible.
- 10. Hide the extension cord of the rear-view camera as the picture shown:



11.Please ensure all films of the front camera and rear-view camera are removed and both cameras are clean before use.

PRODUCT SPECIFICATION

Specification are subject to change due to continuous improvement and no prior notice will be given.

Sub-Category	Default
Screen Size	2.0' HD IPS screen
Viewing Angle	170° diagonal ultra wide viewing angle (front lens) 140° diagonal wide viewing angle (rear-view lens)
Video Resolution	1080P 1920X1080/720P 1280x720 /VGA 640x480 (front camera) 1080P 1920X1080 (rear-view camera)
Image Resolution	12M/10M/8M/5M/3M/2M/1M/VGA
Video Format	MOV/H264
Image Format	JPG
Memory Card	Max. 128 GB mSD Card (Class 10, UHS 3 speed or above)
Frequency	50Hz/60Hz
Power Port	USB 5V/1.5A+2.4A
Battery Capacity	300mA
Microphone/Speaker	Built-in
Loop Recording	Off/1min/3mins/5mins
Screen Saver / Audio Record / Date Stamp / G-Sensor / Motion Detection / Parking Monitoring / Car Number Display /Parking Mode /Parking Mode Timing	Support
Language	English
DVR N.W	99g
DVR Size	58(W)X65(H)X33(D)mm

Package Content

1xDVR 1xuser manual

1xrear-view camera 1xcharger connector cable (car charger)

1xmounting holder 1xwarranty card

TROUBLE SHOOTING

Q1. DVR does not power ON

- A. Please make sure if DVR Is properly connected to the car charger. Since the built-in battery Is only to save the last file In case of emergency, powering ON with the 12V car charger is suggested. It is recommended to ONLY use the 12V car charger that comes with the device, do NOT use a standard vehicle USB port.
- Reset DVR to default settings.

Q2. Stops recording or "Card Full" Error Massage

- A. CLASS 10, UHS 3 speed or above mSD card is recommended. The mSD card specification varies from one brand to another, some may not function as expected when used with this DVR. Please test for mSD compatibility before purchasing.
- B. Usually caused by too many "locked" flies. Go to settings, select Format, delete all data. If road conditions are too bumpy, this many also cause too many locked flies on the mSD card, in this case lower the G-Sensor sensitivity to Low.
- C. Reset the device.

Q3. 'No Card' Error Massage

- A. Please confirm that the mSD Card is inserted correctly and secured in its location. If not, the mSD card is most likely inserted wrong.
- B. Format mSD card (located in settings).

Q4. Date & Time are incorrect

A. Reset the date and time in the System Menu. If the internal battery is drained completly, then the device needs to be fully charged and the date/time will need to be re entered.

Q5. Blurry video or picture or horizontal stripe interference on image

- A. Make sure all protective adhesive is off the lens and screen.
- B. Please clean the lens with soft cotton cloth and don't touch the lens. Ensure there is no dirt or fingerprints on the lens
- C. Set the correct Frequency in System Menu.
- D. The quality of video and pictures will be affected in case front lighting and / or back lighting environment.

Q6. Battery only last 10 minutes or less

A. This is normal, the built-in battery is designed to save footage when the unit loses power.

Q7. The LCD shuts off when I'm driving

A. Go to System Menu to check if Screen Saver set On. If yes, please set it Off.

- Q8. The device has frozen after quick-operating press
- Please wait at least 1 or 2 seconds to finish your last press before you start the next one, do NOT press buttons thick and fast.
- Please reset the DVR.
- **Q9.** The device has frozen/stopped working after recording for a while
- A. Check if the mSD card was formatted in the device (located in settings) before first use.
- B. It is recommend that you make your purchase from a reputable vendor and steer from generic brands.
- C. Check the speed of the mSD card. A Class 10, UHS 3 speed or higher is required for the highest data transfer, especially if the file sizes are large.
- D. Rest the device by sticking in a sharp object (paper clip) into the reset hole.
- Q10. I get an error massage "Picture error" while attempting to play back a file
- A. There may be some corrupt data sectors on the mSD card, please format the SD card using the Format option in System Menu.
- Q11. Can't play back files(.mov and .jpg)
- A. The computer does not have the proper codec to play this file. Upgrade your Windows Media Player, QuickTime Player,etc. VCL Media Player is suggested.
- Q12. My video/pictures of an incident are NOT there
- A. Check if the capacity of mSD card is filled with many "locked" files and hence there is not enough memory to record. Go to settings, Format, delete all data.
- B. The files may have been overwritten in a record cycle (loop recording).
- Q13. The device is not turning ON
- A. Let the device remain plugged in to the 12V charging connector for about 10 minutes, sometimes due to storage and delivery, the battery may be completely drained, this is normal.
- Q14. No voice in the video, no keypad tone, no G-Sensor, and no date and time
- A. There may be abnormal use to cause loss of function, please select the 'Default Setting' in the System Menu.
- Q15. I get a damaged file while attempting to play back a video
- A. This may be caused by the recording time is no more than 1 second.
- B. There may be some corrupt data sectors on the mSD card, please format the SD card using the Format option in System Menu.