BMW Advanced Car Eye 3.0

INSTRUCTIONS FOR USE.
ORIGINAL BMW ZUBEHÖR.

BMW Advanced Car Eye 3.0
Instructions for use

BMW Advanced Car Eye 3.0
Instructions for use

Contents

Information

Symbols used

⚠️ Denotes instructions that draw your attention to dangers.

▷ Denotes instructions that draw your attention to special features.

◂ Denotes the end of the instruction or warning text.

General information

BMW recommends that you only use parts and accessories which have been tested and approved by BMW with regard to safety, function and sustainability.

BMW reserves the right to change or modify any of the information or specifications in this user guide without prior notice or obligation.

The most up-to-date user guide is available on the Advanced Car Eye 3.0 application and at the following website: https://www.ace-30.com

The user guide is an integral part of the product. It contains important information relating to safety, use and disposal of the product. Carefully read all the operating and safety instructions before using the product.

Use the product only as described in this user guide for the designated purposes.

BMW does not guarantee that the recorded data can always be used as evidence.

When delivering the product to a third party, hand over all relevant documents along with the product.

If you have any questions about using Advanced Car Eye 3.0 (ACE 3.0) contact the following email for the relevant region:

China: support@ace-30.cn

Korea: support@ace-30.kr

Japan: support@ace-30.jp

European Union: EU-support@ace-30.de

Worldwide: support@ace-30.com

Legal regulations

The users take full responsibility for checking the local legal requirements for using the ACE 3.0 and Advanced Car Eye 3.0 application (hereinafter referred to as the "ACE 3.0 app"). You must check the current laws in the relevant countries and check whether the product is allowed to be used and its permitted uses to comply with the legal regulations.

In some circumstances, media data may also be legally used against the users (e.g., speeding).

Videos of public places recorded using the ACE 3.0 must not be published on the internet or in other places.

⚠️ Always follow the legal regulations. Legal regulations are subject to change. Regularly check if there has been any changes in the local laws and regulations that prohibit the use of the product. If the use of the product is prohibited by the country, the front camera must be removed, and then the rear camera (optional) will be disabled as a result.

For more information about the use of the ACE 3.0 app, contact a professional authorized dealer.

Safety information

The product may only be installed by a BMW workshop.

Do not operate the ACE 3.0 app while you are driving or the engine is running.

When delivering the product to a third party, hand over the user guide and the Declaration of Conformity along with the product.

Erase all recordings and settings using the ACE 3.0 app before delivering the product to a third party.

Product overview

Included items

- Front camera (rear camera is optional)
- Wiring harness
- 32 GB microSD™ card
- User guide
- Declaration of Conformity
- Cable ties
- Cleaning wipe & anti bubble foil
- Camera mount (with adhesive tape)

microSD™ Card

The product is provided with a microSD™ memory card.

Recorded videos and taken pictures will be saved on the microSD™ memory card. The product cannot start recording or take pictures if the memory card is not inserted.

To avoid data loss or corruption, be sure to insert or remove the memory card while the product is turned off.

Use only authentic memory cards. BMW does not guarantee compatibility with or proper operation of third-party memory cards.

Depending on the operation mode of the product, recorded images are saved in these folders:

- DRIVING: Driving mode videos
- INCIDENT: Driving incident videos
- PARKING: Parking mode videos
- SNAPSHOT: Manually recorded videos/ pictures
- MARKED: Storage

Front camera

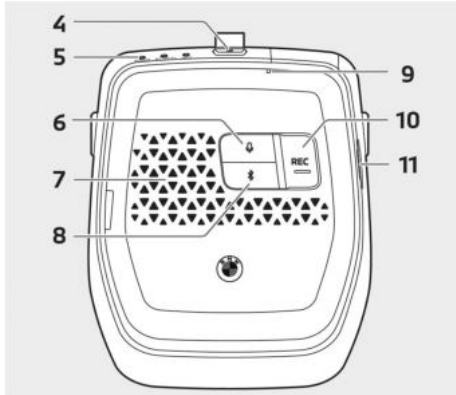The product may only be installed by a BMW workshop.

1 Camera mount

2 Security LED

- Driving recording: white LED on
- Driving incident/manual recording: white flashing LED
- Parking recording: white LED off
- Parking incident recording: white LED on

> In Japan, the LED turns off while recording in driving mode and the white LED flashes in the event of a parking incident. ◄

3 Front camera lens

4 Power button (⏻)

– Press to turn on the product.

– Press and hold to turn off the product.

5 Status LED

Displays the operating status of the product.

> Refer to "Checking the status LED" for more information. ◀

6 Microphone button (🎤)

– Press to turn audio recording on or off.

– Press and hold to turn voice recognition on or off.

7 Speaker

8 Bluetooth button (🅱)

– Press to turn on Bluetooth.

– Press and hold to start initial Bluetooth pairing.

– When Bluetooth is on, press it again to turn off Bluetooth.
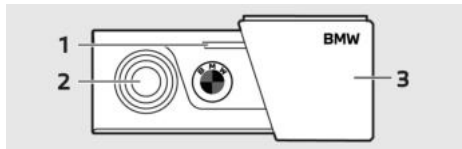
9 Microphone

10 Recording button (**REC**)

Press to take a picture or start manual recording.

> You can change the action in the ACE 3.0 app: Camera settings > REC buttons ◀
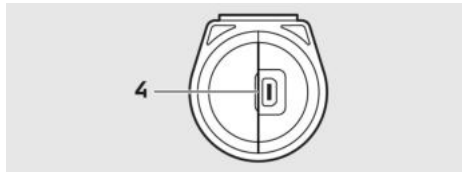
11 microSD™ card slot

Rear camera (optional)

1 Security LED

2 Rear camera lens

3 Rear camera mount

4 Rear camera cable connector

Checking the status LED

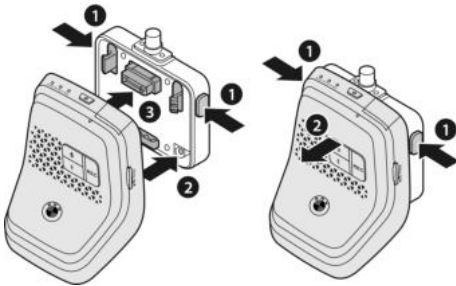| Status	Specification		
	Status LED		
	AUDIO LED	**BT/WIFI LED**	**REC LED**
Audio recording on	Orange	-	-
Audio recording off	Off	-	-
Waiting for Bluetooth connection	-	Flashing blue	-
Bluetooth initial pairing mode	-	Fast flashing blue	-
Bluetooth connected	-	Blue	-
Bluetooth off	-	Off	-
Waiting for Wi-Fi connection	-	Flashing green	-
Wi-Fi connected	-	Green	-
Recording standby (Power on)	-	-	White
Continuous recording	-	-	Red
Event recording (incident/manual recording)	-	-	Flashing red
Event recording (taking pictures)	-	-	Flashing red twice
Firmware update	LED flashing sequentially		
Error occurred	LED flashing 5 times simultaneously		

Using the product

microSD™ card

Ensure that the product is turned off before inserting the memory card.

If the memory card is removed or inserted while the product is turned on, the stored data may be lost or the product may get damaged.

Removing the protective film from the camera lens

Remove the protective film from the front camera lens before using the front (rear) camera.

Mounting and removing the front camera

The front camera can be mounted or removed by simultaneously pressing the buttons (1) on both sides of the camera mount at the same time.

When connecting the product with the camera mount, first align the groove (2) at the bottom of the camera mount with the product, and then completely assemble the product (3) and the camera mount.

Removing the front camera also disables the rear camera (optional).

▷ Be sure to remove the front camera while the product is turned off. The stored media may be lost or the product get damaged. ◀

Switching the camera on and off

- Automatically:
  - The camera is switched on automatically by turning on the ignition of the vehicle.
  - The camera is switched off automatically by turning off the ignition of the vehicle after a defined time (Exit phase).
- Manually:
  - The camera can be switched on manually by pressing the power button.
  - The camera can be switched off manually by pressing the power button for three seconds.

- Press and hold the power button for 3 seconds to turn off the product.

Resetting the product

Press and hold both the power button (⏻) and the record button (**REC**) at the same time for several seconds to perform a factory reset (all recordings & settings).

Activating ETC product (only available in China)

Product registration and activation works only in the ETC app and is only applicable to users using the product in China. ◀

1. Download and install the ETC app on your smartphone.
2. Touch **e高速App > ETC网厅 > ETC免费** and follow the in-app instructions to register user information.
3. When following the instructions, press and hold the Bluetooth (✳) and the microphone button (🎤) on the product simultaneously during the ETC activation step to complete activation and registration.

Product features

The BMW Advanced Car Eye 3.0 monitors the vehicle both as you drive and when it is parked. Intelligent sensors enable the camera to record risky traffic situations, (attempted) break-ins and accidents.

Driving mode

When the vehicle is started, the status LED will turn on in combination with a voice announcement. Driving mode will be activated.

– Continuous recording: While driving, videos are recorded in 1-minute segments and stored in the "DRIVING" folder.

– Incident recording: When an impact to the vehicle is detected, the video recording will be started from 10 seconds before to 50 seconds after the incident and is stored in the "INCIDENT" folder.

> You can choose between continuously recording and incident recording.
>
> Please check the current laws in the country in which the ACE 3.0 and app is intended to be used. Check out whether and how its use is legal or not and comply with the legal regulations. ◀

Parking mode

When the engine is turned off the product automatically switches to Parking mode after the Exit phase time has elapsed.

When an impact is detected in Parking mode, a video is recorded for 10 seconds before and after the impact. It is saved in the "PARKING" folder.

■ Exit phase: This refers to the adjustable assumed amount of time for the driver to leave the vehicle after the engine is turned off.

■ Entry phase: This refers to the adjustable assumed amount of time for the driver to enter the vehicle before the engine is turned on.

Videos of impacts recorded within the Exit or Entry phase do not add up to the number of incidents announced by the camera or the ACE 3.0 app. The recordings will be stored in the "Driving" folder. During this phase it is still possible to establish a connection between the camera and smartphone.

> Be sure to regularly check if the laws and regulations of the country allow the use of the Parking mode.
>
> If the ACE 3.0 app and the product are connected during the Exit phase, the Parking mode will not be initiated as the driver is considered to be staying inside the vehicle. ◀

Manual recording (REC)

Videos can be recorded and pictures can be taken manually.

Press the record button (**REC**) on the front camera to start recording. Recordings will be saved in the "SNAPSHOT" folder.

The video contains 10 seconds before to 50 seconds after pressing the button.

> Change between video or picture: ACE 3.0 app > Settings > Recording settings. ◀

HDR (High Dynamic Range)

It is possible to record the video with the front camera in HDR (High Dynamic Range) by activating the feature.

HDR changes the way the luminance and colours of videos and pictures are represented. It allows brighter and more detailed highlights, darker and more detailed shadows, and a wider array of more intense colours to be represented.

Night Vision

With the Night Vision feature, it is possible to record videos, even under difficult light conditions. The recordings will be brighter than videos recorded without Night Vision. It is enabled by real-time image signal processing (ISP) which improves the brightness of videos recorded while parked at night.

GPS

The GPS function adds speed information and current location to the recording and enables the vehicle location function.

Please check the laws and regulations of your country before using the product for the first time. GPS may be not allowed in certain countries.

Vehicle location

The user can find the parked vehicle easily by using the ACE 3.0 app. When the product switches to Parking mode while connected to the ACE 3.0 app, the pictures and videos taken by the front and rear camera (optional) are saved in the ACE 3.0 app, and the location of the vehicle is displayed on a digital map (may vary according to national law).

To use this feature, the product's GPS signal must be activated when switching to the Parking mode.

Pictures taken by the front and rear camera (optional) and the location on the map (if the GPS feature is turned on) will be saved in the ACE 3.0 app until you use this feature again. ◀

Using voice recognition

Voice recognition is a hands-free solution which can be used to control the camera in different situations. This feature is available in the following languages: English, German, Korean, Chinese & Japanese.

Voice recognition can be turned on or off in the ACE 3.0 app > Settings > System Settings > Voice recognition.

Refer to "Voice recognition commands" for more information. ◀

Voice recognition commands

The voice recognition commands for each language are as follows. Use "Hi Camera" to activate voice recognition and continue with desired command. Make sure to use commands exactly as they are shown in the manual.

Commands					
Items	**Korean**	**English**	**German**	**Chinese**	**Japanese**
Turn on camera	Hi Camera	Hi Camera	Hi Kamera	睿眼，你好	はい、カメラ
Start manual recording (photo)	사진 찍어	Take a picture	Foto aufnehmen	拍照	写真を撮って
Start manual recording (video)	녹화 해	Save video	Video aufnehmen	录视频	動画を撮って
Turn sound off	소리 꺼	Speaker off	Lautsprecher aus	关闭扬声器	スピーカーオフ
Turn sound on	소리 켜	Speaker on	Lautsprecher an	开启扬声器	スピーカーオン
Turn voice recording off	음성 녹음 꺼	Microphone off	Mikrofon aus	关闭录音	録音オフ
Turn voice recording on	음성 녹음 켜	Microphone on	Mikrofon an	开启录音	録音オン
Turn down voice guidance volume	볼륨 작게	Decrease volume	Leiser	调低音量	ボリュームを下げて
Turn up voice guidance volume	볼륨 크게	Increase volume	Lauter	调高音量	ボリュームを上げて

Using the ACE 3.0 app

The BMW Advanced Car Eye 3.0 can be controlled directly from the Advanced Car Eye app and recorded events can be viewed and archived on your smartphone.

Follow the QR code in the packaging to get the correct link to the ACE 3.0 app. Download the app from the appropriate App Store and install it on the device.

⚠️ Do not operate the product or app while driving. ◀

To connect the camera with the smartphone, turn on Bluetooth and follow the instructions from the app.

▷ You can only connect one smartphone to the product at a time. If the product does not connect to the smartphone, check the FAQs, offered in the app. ◀

Please ensure that the ACE 3.0 app is always up-to-date. BMW recommends enabling the automatic update function. App updates always contain firmware updates which will be transmitted and installed as soon as the camera is connected to the smartphone.

▷ Follow the instructions in the ACE 3.0 app before updating the firmware.

The customized settings are maintained even after the firmware update. ◀

Settings

Settings can be found in the main bar of the ACE 3.0 app. Each feature of the product can be set and used according to the user's need or preference.

Camera settings

- **Audio Recording**: Turn sound recording on or off.
- **REC Button Action**: Select either video or picture when the recording button (**REC**) is pressed.
- **HDR**: Turn HDR on or off.
- **Night Vision**: Turn Night Vision on or off.
- **Channel setting**: Select either "front camera only" or "front and rear camera" (if rear camera is installed) to set recording cameras.

  ▷ When changing the channel setting, the camera will be formatted automatically. Please back up all recordings before changing the channel setting. ◀

- **Brightness-front**: Select the desired brightness of the front camera.
- **Brightness-rear**: Select the desired brightness of the rear camera.

Recording settings

Driving mode

- **Driving mode**: Select either Continuous recording or G-Sensor only to be used in Driving mode.

   When changing the Driving mode recording, the camera will be formatted automatically. Please back up all recordings before changing the channel setting. ◀

- **G-Sensor sensitivity**: Select the desired sensitivity for driving incidents.
- **Entry phase**: Set the Entry phase time from one to five minutes.
- **Exit phase**: Set the Exit phase time from one to five minutes.

Parking mode

- **Parking mode**: Turn Parking mode on or off.
- **G-Sensor sensitivity**: Select the desired sensitivity for G-Sensor events in Parking mode.

Volume settings

- **Beep sound**: Adjust volume for beep sounds.
- **Voice guidance**: Adjust volume for voice guidance.

System settings

- **Language**: Select the language of the voice announcements.
- **Country/Region**: Select the country/region where the camera is used.
- **Date and time**: Activate "Set date and timezone automatically" or set time zone manually.

- **Voice gender**: Select the desired gender for the voice announcements.
- **Voice recognition**: Turn voice recognition on or off and select the language.
- **Security LED**: Turn the security LED on or off (may be mandatory in some countries).
- **Overlays**: Turn on or off. Date, time, speed and GPS will be displayed in the recordings.
- **Speed unit**: Select the desired unit for speed.
- **GPS**: Turn GPS on or off.
- **Factory reset**:
  - Settings
  - All recordings
  - All recordings & settings

 WIFI frequency

The Advanced Car Eye 3.0 device uses a 5 GHz band to connect to the smartphone, which provides faster transmission rates than 2.4 GHz bands.

If the used smartphone does not support 5 GHz, the Wi-Fi frequency will change to 2.4 GHz. ◀

Viewing recordings

Checking videos and pictures

All recordings are saved in certain folders on the memory card.

You can move the the recordings from the memory card to your computer or download them to the ACE 3.0 app.

Recordings are saved with a file name of "**Date_Time_Front/Back.File Format**".

20211028_145233_REC_F.MP4
20211028_145233_REC_R.MP4

Description of file names

- **REC**: Driving recordings
- **EVT**: Incident driving recordings
- **PAKG**: Incident parking recordings
- **MAN**: Manual recordings
- **F**: Front camera recordings
- **R**: Rear camera recordings
- **MP4/JPG**: File format

When an important event (incident recording) occurs, back up the video or picture data to the ACE 3.0 app or an external memory.

To prevent data loss and malfunctions, insert and remove the microSD™ card only when the product is turned off. ◀

Specifications

Items		Description	
CPU		Quad-core Cortex-A53, up to 1008 MHz	
Memory		DDR3 512MByte (32bit) / NAND 512 MB	
Resolution		QHD 2560 x 1440 p (30 fps) FHD 1920 x 1080 p (30 fps) Japan 27.5 fps	
G sensor		3-axis acceleration sensor / acceleration range ±4g	
Memory card		UHS-I 32GB / 64GB / 128GB	
Emergency current		Super capacitor	
GPS		3GNSS (GPS, GLONASS), number of concurrent GNSS: 3	
Interface		■ AV-IN terminal: rear camera ■ USB: mass storage only	
Operating voltage		12 V	
Operating/storage temperature		-30°C - 80°C	
Bluetooth	Standard	Bluetooth V5.0, BLE	
	Frequency range	2402 MHz ~ 2480 MHz	
	Number of channels	40	
WIFI	Frequency	2.4 GHz RF specification	5 GHz RF specification
	Standard	IEEE 802.11b/g/n	IEEE 802.11a/n
	Frequency range	2.400 GHz - 2.497 GHz	5.15 GHz - 5.25 GHz
	Number of channels	1-11 (USA) 1-13 (Europe, Korea, China)	36-48 channels

Items		Description	
	Transmit output	■ 802.11b/11M: 13 dBm ± 1.5 dB ■ 802.11g/54M: 13 dBm ± 1.5 dB ■ 802.11n/MCS7: 11 dBm ± 1.5 dB	■ 802.11a/54M: 13 dBm ± 2 dB ■ 802.11n/MCS7: 12 dBm ± 2 dB

▷ Hong Kong: Do not connect to WIFI 5150-5350MHz option as you are forbidden by local authority. ◂

Disposal of electrical devices

In accordance with
European Directive 2012/19/EC on the disposal of electrical and electronic devices and the applicable national laws, old electrical devices must be collected separately and recycled in an environmentally friendly manner. If the symbol with an X on a waste bin is marked on the product or accompanying documentation, it must be discarded separately from general waste at the end of its lifespan. For the disposal and recycling of these materials, take the product to your local collection point or recycling bin, or check with a qualified authorized dealer or local disposal company for the correct disposal method and information on nearby recycling points.

FCC Statement

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 and (2) this device and its accessories must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

⚠ Changes or modifications not expressly approved by the manufacturer (or party responsible) for compliance could void the user's authority to operate the equipment. ◀