▪ ABOUT THE MANUAL

Manual content for the user's reference, manufacturers have to depend on the product situation. The Company strives to be correct and complete in this manual, if there are errors or omissions, welcome to point the finger. The Company also reserves the right to change the technical specifications of the product at any time, without prior notice.

▪ BSMI STATEMENT

This product has been inspected by the Bureau of The Bureau of The Ministry of Economy of Taiwan (Metrology and Inspection) and complies with all relevant current directives, does not interfere with other in-vehicle electronic instruments, and is legally available for display and sale within the territory of the Republic of China.

▪ RoHS STATEMENT

RoHS (2002/95/EC) is the European Union's Directive on Restrictions on the Use of Hazardous Substances to Protect the Environment.
The process of making the products is in line with RoHS restrictions of six hazardous substances (mercury, cadmium, hexavalent chromium, PBDI and Brominated).

1. ABOUT PRODUCTS

Thank you for purchasing abee M538GH + S100 high-quality dash cam recorder. The Company strives to provide innovative and high-quality electronic consumer products. This dash cam is dedicated to the real-time video and audio recording while driving. In the case of using external power bank, it can also support the use of external video recording.

1.1. PRODUCT FEATURES

- Front Camera: 1080P / 30fps; Rear Camera: 1080P / 30fps, fully recording at all times.
- 140°angle (with wide field of view)
- F/1.5 large aperture with high amount of light and clear images recorded even in dim environments.
- Full-glass lens plus IR filter, heat-resistant, filter up-grate to provide a greater image quality.
- 3DNR noise-cancelling image processing chip for Japanese camera plant, up-grade picture quality.
- Loop recording does not leak seconds, automatically overwrites the oldest files when memory capacity is full.
- Automatic recording function, the dash cam starts or shut down with the engine state or archives, easy to use.
- G-Sensor (X / Y / Z) collision detection, adjustable sensitivity, and activate emergency video when a collision is detected.
- HDR combines multiple exposure levels for each video frame and can improve clarity in high contrast or low-light conditions.
- TS Compressed Format Write and save in seconds while recording. Prevent files damaged if bumping into accident or electricity broken down.
- Use ethernet transmission system to make the quality of recording more stable and faster.
- Parts and capacitors are tested at high temperatures for safe and secure use.
- Built-in supercapacitor for safety and convenience.
- Support for Class 10 and above Micro SD cards (32GB to 128GB).
- Match RoHS environmental standards.
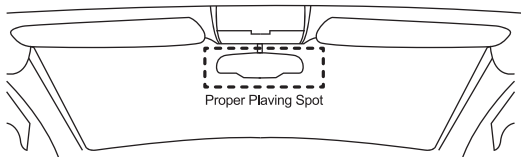
- EXCLUSIVE FEATURES

- TS compressed file format. Save in any second. Prevent missing any important files.
- U.S. satellite receiving module 25 x 25mm ceramic antenna, recording direction, time, and speed.
- Built-in fixed speed camera data, voice warning to avoid receiving speeding tickets.
- Provide online updates database or manually added custom speed point locations.
- Custom self-speed limit and warning immediately when the vehicle's speed exceeds the setting.
- Elastic speed limit point setting. Freely change speeding limit point depending on users' habits.
- A dedicated computer player that displays map location, driving direction, G-Sensor information.

1.2. PRODUCT APPEARANCE AND ACCESSORIES

S100 Rear Len

Glass Protection Past

3M Adhesive Bracket

Car Charger Cable

Y Cable

Back-Pull Line

01. Power Outlet
02. Bracket slot
03. Front and rear lens switch key
04. Front lens
05. Microphone
06. Power On/Off
07. Micro SD slot

08. LED
09. Screen
10. Menu / Back
11. Up / Take Photo
12. Down / Play / Stop
13. Record / Confirm / Standby / Play

1.3. INSTALLATION NOTES

1. For the best view and to reduce obstruction of the driver's sight, set the main product close to the rearview mirror.
2. To ensure clear shooting on rainy days, make sure that the lens place within the wiper cleaning range.
3. Please confirm that the installation location does not affect the operation of the airbag, the Company shall not be liable for any accident or damage caused by installing the unit within the airbag cover or airbag operating range.
4. After selecting the installation spot, first wipe and clean the spot to ensure the adhesive bracket fits tightly.
5. Do not touch the lens with your fingers to prevent skin grease causing the foggy image. When the lens is dirty, wipe the lens with a mirror cloth to keep it clean.
6. Avoid the colored windows to avoid poor recording quality.

Proper Playing Spot

1.4. CABLING RECOMDATION

1. Route the car charge line up along the inner seam of the car and route it in the direction of the passenger seat door.

2. Extend to the door frame strip (inside the A-pillar) and secure down to the foot carpet and to centre console.
3. If there is extra car chargeing cable, it can be placed under the foot carpet.
4. While installing use coins or other small hard tools to plug the car charger cable into a small area tosecure it.

1.5. ATTENTION NOTES

Please read this manual before use in order to use this console correctly.

- Please use original "abee" accessories.
- Please use a memory card above Class 10 and above 8GB to avoid image delays.
- Some cars will continue to provide power from cigarette lighter after the engine shuts down. To prevent running out of power or causing other damage, please manually pull out the cigarette lighter, or remove the link between the host and the cigarette lighter after the car shuts off.
- When getting off the car, do not place the console in a location which will be exposed directly to the sunlight.
- Long-term power-on may cause the body slightly hot which is normal. Please do not worry.
- Do not disassemble or repair yourself if the product is damaged or abnormal. Please contact the dealer or the company's customer service center.
- Avoid falling, colliding, or pressing the LCD screen too hard. These actions may cause damage or abnormality to the LCD screen.
- Please keep the machine away from water and do not clean the machine with any chemical products with strong acid and alkali. Keep your hands dry when using the machine.
- Please comply with local traffic regulations, prioritize driving safety and do not operate the unit while driving.
- GPS positioning results are for informational purposes only and should not affect actual driving behavior. Some factors that affect the accuracy of GPS positioning include weather conditions, the location of use, and the inability of GPS signals to penetrate buildings and car insulation paper with metal components.

▪ START

2.1. IN-CAR INSTALLATION

2.1.1. Put in memory card

- The screen faces up, and put the metal contact side of the memory card down, inserts into the card slot until you hear click, so the installation is complete.
- To remove the memory card, press the memory card in the card slot and it will pop up automatically.
- Attention: Do not remove or insert the memory card when the car is on. Supports Micro SD cards with a maximum capacity of 128GB over Class 10. Please format the card before use. After starting, it is also recommended to reformat the card periodically, so as to avoid unexpected failure of the card leading to the inability to store the image file.

2.1.2. Installation considerations

1. Install the device in the area around the rear view mirror.
2. Be sure the device is installed where the windshield wipers can clear the windshield in front of the lens.
3. Do not install on colored or heavily tinted windshield which may affect recording quality.
4. Clean the windshield area where you plan to install the bracket.

Installation Procedure
1. Insert MicroSD card into device.
2. Format MicroSD card. (Menu / File Management / Format)
3. Slide the bracket connector into the bracket slot on the camera until you hear the click.
4. Place the car window static electricity sticker first on the windshield and Lift the suction clamp or 3M adhesive sticker. Place the bracket's suction cup or 3M adhesive pad on the windshield and press down to secure the bracket.

Remove the Bracket
To remove the bracket from the windshield, release the suction cup or take off the 3M adhesive pad, and hold the camera securely.

Connect to Power
1. Connect the car adapter's USB plug to the device's USB port.
2. Connect the cigarette lighter adapter plug to the vehicle's cigarette lighter port.
3. The device turns on. Red light indicates the device being recording, while the green light indicates the device in standby mode.
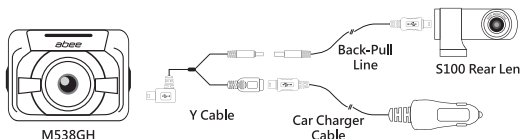
• NOTE

In certain models of cars, the cigarette lighter keeps providing power even when the engine is off. Be sure to remove the car charger or disconnect the device when leaving the vehicle to prevent draining the vehicle battery. Check your vehicle's owner's manual to determine if this applies to your vehicle.

2.1.3. Connect the rear camera
1. Connect the rear-pull USB side to the rear camera .
2. The car is charged at the other end to connect the cigarette lighter, the engine / stops the fire automatically / on.
* A red dot on the top left of the screen indicates the recording is running.

M538GH

Y Cable

Back-Pull Line

Car Charger Cable

S100 Rear Len

2.2. ON/OFF/FRONT AND REAR LENS SWITCHING
1. Automatic switch: use the car charge cable connecting to the cigarette lighter and the product properly. When the car engine starts, the product automatically power on and it automatically records after powering on (2.3.1 Setting auto-recording), and the host automatically stores the recording and turns off the power when the car engine shuts down.

2. Manual switch: Push the lever on the SD card slot under the fuselage (the SD card slot is closed) and manually power turns on. While the host is on, you can turn the putter back (the SD card slot is open) and can manually shut it down.
3. Front and rear lens switching: short press the underbody key to switch the front and rear lens screen and mother and child screen.

2.3. START SETTINGS

2.3.1. Automatic video Setting
1. Single-click **M** (MENU) key to enter the directory
2. Press ▼ and Select recording settings, and then press **O** Key
3. Press ▲/▼ and Select Auto Video, and press **O** Key
4. Press ▲/▼ and Select On, and press **O** Key
5. Double-click M and jump out of the directory

2.3.2. Set time & date
1. Single-click **M** (MENU) key to enter the directory
2. Select the system settings, and then press **O** Key
3. Select the time setting and press **O** Key
4. Adjust the value with ▲/▼ key, and press **O** Key to the next column
5. Repeat Step 4 until it completes setting

3. ACTION

3.1. VIDEO

3.1.1. Auto/ Manual Video and Photo
1. Automatic recording: When the auto-recording option is turned on, as long as the car charge line is properly connected to the cigarette lighter and the host, the host will automatically start to take video when the engine turns on.
2. Manual video mode: When video stops or on standby mode, press **O** key to start recording the video, press ▼ key to stop the video.
3. Whether in video or on standby mode, press ▲ key to take photos.

3.1.2. Emergency Video
1. During the recording mode, press ○again to activate the emergency video and the screen will show "Emergency video".
2. Press ▼ key to stop the emergency recording.
   * While turning off the car or the host powers off, it needs to additionally connect to a power cable (buy separately) and allows the host to start emergency recording while detects any incident.s
   * The archive of emergency recording mode is stored in the EMERG folder. Only 10 groups of emergency video files can be stored in the folder, and when you reach 10 sets of files, the screen will appear with the words "Emergency video files are full and the first information will be covered", the system will cover the oldest emergency video files, and continue with the emergency video recording.

3.1.3. Video graphics

NO.	ITEM	DESCRIPTION
1	Duration	Mark the recording duration.
2	Custom Speed Limit	Show the custom speed limit (set by the user).
3	Resolution	Mark the resolution of the video.
4	Microphone	Show if the microphone is active.
5	GPS	Indicate if GPS is active and the signal strength.
6	Power Source/Battery	Show if the device using power source or built-in battery.
7	Current Speed	Show the current speed
8	Date, Time and Model	Current date, time and model (from left to right).
9	Menu	After stopping recording, press this to access Menu.
10	Snapshot	(1) Press to take a snapshot of the current image.
		(2) Press and hold to add a GPS position to the list of manual added position.
11	Stop	Press ▼ to stop recording.
12	Emergency Recording	Press **OK** to start emergency recording.
13	Date, Time and Model	Current date, time and model (from left to right).

3.1.4 Lens screen after screen switch

M538GH supports rear camera recording, connected to the rear camera which can record the download of the rear image of the vehicle, even if the host screen only shows the front camera screen, the rear camera recording function is still not affected, will also record the rear image of the vehicle (the rear camera model S100).

To view the rear camera screen, you can switch the screen display by pressing the toggle key to the left of the power key below the console.

1. The default screen is a child-parent lens screen, as shown in the following image (upper right of the screen is the rear len).

2. In the default screen case, press the toggle key to switch the screen to the front lens screen, as follows:

3. In front lens screen mode, press the toggle key again to switch the screen to the rear lens screen, as shown below:

3.2. VIDEO BROWSING

3.2.1. Play

To watch a video or photo, follow these steps

1. Press **M** (Menu) to access the Menu system.
2. To File Management Select File Playback
3. Press ▲/▼ to select General / Emergency Video, Photo, then Press with **O** Key
4. After entering the file type, press ▲/▼ and select the the video you want to watch, and press **O** Key
5. Press **M** (Menu) to exit.

3.2.2. Delete

To delete a video or photo, follow these steps

1. Press **M** to enter the directory on the standby screen
2. Press ▼ to file management, press **O** Key
3. Select File Delete, press **O** Key
4. Press ▲/▼ to select General / Emergency Video, Photo, then Press with **O** Key
5. After entering the folder, press ▲/▼ to select the file you want to delete, then press **O** key to delete the file

* After entering the file folder, please be careful to confirm the file you want to delete in case accidentally delete important files.

3.3. M KEY ADJUSTMENT SETTINGS

The M key allows you to adjust the settings in the directory. To enter the catalog adjustment settings, first press the key ▼ to stop recording, and then press the M key to enter the catalog.

SYSTEM SETTING

Date Time	Adjust the device's date / time
Screen Setting	Set when the screen goes into Sleep mode.
Voice	Adjust notification volume and turns voice record ON or OFF.
Language	Set the language shown on the device.
Default Setting	Return the device to default setting.

GPS SETUP

Satellite Setting	• Adjusts the time zone. • Turn Time Sync off by setting time zone to OFF (device receives date and time information from manual entry).
Speed Limit Alert	Adjust speed limit alert notification style (Tone, Voice, or Off).
Speed Unit	Set speed measurement to miles per hour or kilometers per hour.
DST	Turn Daylight Saving Time ON or OFF.
Current Speed Display	Turn on to show current speed on LCD screen.

Over Speed Alert Tolerance	Turn on to activate Over Speed Alert Tolerance.
My Locations	Add / delete speed camera points.
Over Speed Alert Management	Turn on to activate the sound alert when driving over certain speed.

VIDEO SETTING

Image Resolution	Choose recording resolution.
File Format	Choose MP4 or TS.
Auto Record	If set to On, automatic recording starts when the engine turns on.
Record Time	Select 2 / 3 / 5 - minute recording interval for circular recording purposes.
Date Stamp	Turn time stamp in files On or Off.

FILE MANAGEMENT

Playback	Play recorded videos and display snapshots.
File Delete	Delete recorded videos and snapshots.
Format	Erase all files in memory card and format this memory card.
Regular Formatting	Choose every 15 days or 30 days to remind or off.
Reminder Version	Display firmware version.

FUNCTION SETTING

Collision Detection	Adjust G-Sensor sensitivity. When the device in normal recording mode, if a collision occurs at the minimum G-Sensor level set, then the device begins recording and tags that recording as an emergency file. (If the device is already recording, it will tag that video fragment as an emergency file.)
Fatigue Driving	When the recording time reaches 1 hour each time, the machine will show warning sounds and message to remind the driver to take a proper rest.
EV	Set the EV value of front and rear lens.
Frequency	Set frequency to either 50Hz or 60Hz.
Headlight	If the camera detects that the light source of the video screen is insufficient, the machine will have warning sounds and message to remind the driver to turn on the headlights.

3.4. MEMORY CARD FILE ACCESS INSTRUCTIONS

1. Read the card from the card reader: First turn off the host, and take out the memory card and put into the card reader.
2. When your computer detects the card reader disk, go to "my computer" and click the disk to browse the files.
* The Memory Card (Micro SD) file is divided into three folders, EMERG, VIDEIO and PHOTO. Emergency recording files are placed in the EMERG folder, and if you find video incoherence in the VIDEO folder, look up in the EMERG folder. Photos are stored in the PHOTO folder, and general video is stored in the VIDEO folder.

3.5. GPS AND SPEED LIMIT POINTS

3.5.1. GPS satellite positioning

After the GPS positioning is successful, an icon 📡 appears in the upper right corner of the screen, and the number of signal bars indicates the signal strength. How to adjust the GPS configuration, please check the 3.3 M button adjustment settings.
*GPS (Global Positioning System) is built and operated by the U.S. Department of Defense, and the accuracy and maintenance of the system is the sole responsibility of the unit, and any changes made by the unit may affect the accuracy and performance of GPS, and the Company does not guarantee the correctness of positioning.

3.5.2. Fixed speed limit alert

1. Fixed speed limit alert: The information of speed limit point is fixed. When the satellite positioning is complete, while the car is approaching a fixed speed limit point, the host will notify with voice or warning tone and displays the speed limit and distance on the screen until it passes through the speeding limit camera.
2. Over Speed Remind: When the speed exceeds the speed limit, also the car is closer to the fixed speed limit point, the host will issue a continuous sound reminding the driver has been over-speeding.
3. Custom speed limit points: While the satellite is positioning, hold the ▲ key to start to customize the speed limit point, and can also be added through the catalog menu, up to 200 groups. How to configure it can be found 3.3 M key adjustment settings.

3.6. DVR PLAYER

The company offers DVR Player software to view movies and travel track map information on your computer. To install this software, please download it from our website (https://www.instant.com.tw/).

1. Recommended system requirements:
   CPU: Intel Core 2 Duo E6600 or AMD Phenom X3 8850 or more RAM: 1G or more. Operating system: Windows 7 and above.
2. Start the downloaded Setup.exe file for installation.
3. Player screen, please see table below.

Nr.	ITEM	DESCRIPTION
A	Video / Photo Display Area	The area displays the front video / photo.
B	Video / Photo Display Area	The area displays the rear video / photo.
C	Maps, Files, All/One	Combine maps, files, and GPS tracks. Press ALL to show the GPS tracks of all the files.
D	Video Operation	Control and operate the video and on/off individual windows.
E	G-Sensor	Show the G-sensor data of the displayed section. You can drag the indication to the place you want to display.
F	Direction & Speed	Show the driving direction, speed and location.
G	Files Found	Show all the file information.
H	GPS Track	Show the displayed section track.

* Before you play the video, make sure you're connected to the network, so that you can read Google Maps' track.
* Video files (.mp4) and data files (.nmea) need to be saved in the same folder before playing simultaneously.

▪ DVR PLAYER

We provide DVR player for you the install on your PC. You can view recorded files from your device. The player also displays photos as well as the G-Sensor data in real time with video as it displays.

You may visit our website www.abee.com.tw to download the software.

1. System Requirement :

   CPU : Intel Core 2 Duo E6600 or AMD Phenom X3 8850 or above.

   RAM : at least 1G.

   Operation System : Windows 7 or above.

2. Activate the downloaded Setup.exe file and follow the prompts to install and run the software.

3. Turn the device off. Connect the device to the PC with a USB cable (not provided).

4. From the Video Player screen, click (Import Media Files) or (Search Media Files). The files display in the File List window.

5. Double click the file and play.

6. Down below is the description of the software display :

▪ SPECIFICATION

abee M538GH+S100 GPS high-quality dashboard camera recorder

Image Sensor	Low illumination high sensitivity CMOS sensor
GPS	USA Satellite Receiving Mode 25mm x 25mm Ceramics Antenna
Lens	140° super wide angle
Aperture	F/1.5
LCD Screen	2" TFT Color Screen
Resolution	Front Camera: 1080P/30fps ; Rear Camera: 1080P/30fps
Video File Format	.MP4 / .TS
Compression	H.264
Loop Recording	2 / 3 / 5 Minutes Loop Recording
Power Supply	Car cigarette charger (INPUT : 12V ~ 24V; OUTPUT : DC5V / 2A)
USB Format	With Super Capacitor.
	USB2.0
External Memory	Micro SD Card (32GB ~ 128GB, SDHC Class 10 or above)
Operation Temperature	0°C ~ 60°C
International Certification	BSMI
Dimension	M538GH: 58 x 42 x 44 mm (L x W x H)
Weight	S100: 69.8 x 30 x 37 mm (L x W x H)
	M538GH: approximately 60g
	S100: approximately 35g

NOTE

All specifications are subject to change. abee reserves the right to modify the specification without prior notice to customer.

R32170
RoHS

Device Name: abee M538GH+S100 GPS high-quality dashboard camera recorder						
Unit	Limited-use substances their chemical symbols Restricted substances and its chemical symols					
	Lead	Mercury	Cadmium Cadmiun	Hexavalent chromiun	Polybrominated biphenyls	Polybrominated diphenyl ethers
Circuit board	O	O	O	O	O	O
Plastic housing	O	O	O	O	O	O
Microphone	O	O	O	O	O	O
Horn	O	O	O	O	O	O
Screen	O	O	O	O	O	O
Car charger	O	O	O	O	O	O
Metal stand	O	O	O	O	O	O

Note 1 : "Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted the reference percentage value of the presence condition.

Note 2 : " O " indicates that the percentage content of the restried substance does not exceed the percentage of reference value presence.

Note 3 : The "——" indicates that the restricted substance corresponds to the exemption.