

Uniden®

**CAM945
CAM945G
CAM945GT**

AUTOMOTIVE VIDEO RECORDER



OWNER'S MANUAL

SAFETY CONSIDERATIONS

This product is not waterproof. Do not expose it to rain or moisture.

This product is intended for use in a motor vehicle. Don't install the device where it will block the driver's view of the road or side mirrors. Do not install it where it will interfere with airbag deployment

Pay attention to the road! Don't operate or focus on any device while driving.

Be sure the camera lens is kept clean and there is nothing blocking it.

Don't leave the device in direct sunlight or where temperatures could go above 140° F (60° C) for a long period of time.

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CAM945, CAM945G, CAM945GT

OWNER'S MANUAL

OVERVIEW

ABOUT THIS MANUAL

This manual contains information about three models: CAM945, CAM945G, and CAM945GT. In this manual, CAM945 refers to all three models unless otherwise noted.

FEATURES

<i>Feature</i>	<i>CAM945</i>	<i>CAM945G</i>	<i>CAM945GT</i>
Plug and Play	X	X	X
Full HD 1920 x 1080 @30fps	X	X	X
148° Wide Angle	X	X	X
2.4" LCD screen size	X	X	X
G-Sensor with Collision Detection	X	X	X
F/1.9 Lens	X	X	X
Loop Recording	X	X	X
Lane Departure Warning System	X	X	X
Built-In Microphone	X	X	X
Recording to microSD card	X	X	X

Feature	CAM945	CAM945G	CAM945GT
Parking Assist Mode	X	X	X
Built-In GPS	---	X	X
GPS Location Recording	---	X	X
PC Software (including DVR player and G Sensor Display)	---	X	X
Red Light Alert	---	---	X
Speed Camera Alert	---	---	X

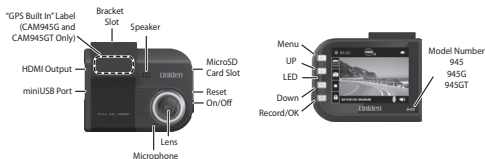
WHAT'S IN THE BOX

- Camera/Recorder
- Car Adapter
- 8G microSD card
- Owner's Manual
- Windshield Mount

If any items are missing or damaged, contact our Customer Care Line immediately at 800-297-1023. Never use damaged products!

***Need help? Get answers 24/7 at our website:
www.uniden.com.***

CONTROLS AND INDICATORS



<i>Item</i>	<i>Function</i>
HDMI Output	Connect your device to your television to view recorded files (HDMI cable not included).
MiniUSB Port	Connects the device to the power source.
Menu	<ul style="list-style-type: none"> Accesses the Menu system. While recording, press and hold to turn the microphone on and off.
LED	<ul style="list-style-type: none"> Green: Standby mode Red: Recording mode
DOWN (▼)	<ul style="list-style-type: none"> In Menus: Selects next item in list. In Playback mode: Selects the next file. In Standby mode: Accesses <i>File Management</i> menu. While Recording: Stops recording.

Item	Function
UP (▲)	<ul style="list-style-type: none"> • In Menus: Moves selection up in the list. • In Playback mode: Selects the previous file. • In Standby mode: Takes a snapshot of the current image. • While recording (CAM945 only): Press to take a snapshot of the current image. • While recording (CAM945G and CAM945GT Only): Press and hold to add a GPS position to the list of manually added cameras
Record/OK (●)	<ul style="list-style-type: none"> • Press to begin recording. • In Menus: Press to accept selection. • In Playback mode: Pauses and unpauses video replay. • While Recording: Tags current recording as an emergency file and stores in the Emergency folder. • While recording: Press and hold to calibrate LDWS (see page 4). • While viewing a snapshot: Press to zoom.
SD Card Slot	Insert microSD card here to record video files.
Reset	Insert an unbent paper clip to reset your device if it has crashed and is unresponsive.
Power (⏻)	Press and hold to turn the unit on and off.

CAM945 INSTALLATION AND SETUP

Installation Safety Warnings

WARNING! Failure to comply with the following warnings could result in an accident or collision, resulting in death or serious injury.

Do not obstruct the driver's view or the operation of the vehicle itself.

Do not place it unsecured on the dashboard or in front/above an airbag.

Do not mount the camera where it will become a distraction if it becomes loose.

Do not attempt to operate the camera while driving. If you need to access the CAM945 to change settings, etc., pull off the road in a safe manner to do so.

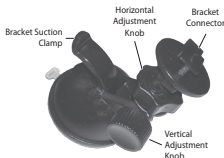
Some state laws prohibit drivers from mounting anything on the windshield, or restrict mounting to specific areas of the windshield. It is the owner's responsibility to mount the CAM945 in compliance with local laws.

INSTALL THE CAM945

Installation Considerations

- Install the device in the area around the rear view mirror.
- Be sure the device is installed where the windshield wipers can clear the windshield in front of the lens.
- Do not install on colored or heavily tinted windshield. The coloring may affect recording quality.
- Clean the windshield area where you plan to install the bracket. Be sure it is clear of dust and dirt.

1. Insert microSD card into device.
2. Format microSD card (*Menu/File Management/Format Card*).
3. Slide the bracket connector into the bracket slot on the camera until you hear it click in place.
4. Lift the suction clamp on the bracket. Place the bracket's suction cup on the windshield and press down on the suction clamp to secure the bracket.
5. Two knobs adjust the camera's position. Loosen the top knob on the side of the bracket to adjust the camera's vertical position. Loosen the bottom knob to adjust the camera's horizontal position.



6. To remove the bracket from the windshield, release the suction cup, hold the camera securely, and lift the suction clamp.

CONNECT TO POWER

1. Connect the car adapter's miniUSB plug to the CAM945's miniUSB port.
2. Connect the cigarette lighter adapter plug to the vehicle's cigarette lighter port.
3. The device turns on. Red lights indicate the device is recording; green lights indicate the device is in stand-by mode.

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.

INITIAL SETUP

Set Language

Follow these procedures if you need to change the language on your device.

1. Press **M** to access the Menu system.
2. Press ▼ to scroll to *System Configuration* if necessary and then press ● (OK).
3. Press ▼ to scroll to *Language* then press ●.
4. Press ▲/▼ to scroll to the desired language and press ● to select it.
5. Press **M** to leave that Menu page.

Set Date and Time - CAM945

1. Press **M** to access the Menu system.
2. Press ▼ to scroll to *System Configuration* and press ●.
3. Press ▼ to scroll to *Date/Time* and press ●.
4. Use ▼/▲ to adjust the date and press ● to move to the next section.
5. Repeat Step 4 until the date is set. Press **M** to leave that Menu page.

Set Date and Time - CAM945G/CAM945GT

The CAM945G and CAM945GT receive date and time information from the GPS satellite if the time zone setting (UTC) is NOT set to OFF. If the UTC is set to OFF, the device will then recognize a manually-set date and time.

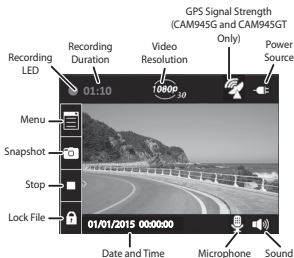
Set Automatic Recording

Activate the Automatic Recording function to have the device start recording when the vehicle's engine is turned on. Activate the function before using the device.

1. Press **M** to access the Menu system.
2. Press ▼ to scroll to *Function Settings* and press ● (OK).
3. Scroll to *Automatic Recording* and press press ● (OK).
4. Scroll to *On* and press ●.
5. Press **M** to leave that Menu page.

SCREEN DESCRIPTION

The following image describes the areas and icons seen on the recording screen. The 4 icons on the left side of the screen correspond to the 4 keys on the device (see page 3).



OPERATION

USING THE MENUS

Press **M** to access the Menu system. Use **▲** and **▼** to scroll through the selections and press **●** to accept that selection.

System Configuration	
Date/Time	Adjust the device's date/time (see page 7).
LCD Setting	Set when the screen goes into Sleep mode.
Sound Control	Adjust notification volume and turns voice record ON or OFF.
Language	Set language to English, French, Spanish, or Portuguese.
Factory Defaults	Return the unit to default settings.
GPS Settings (CAM945G and CAM945GT Only)	
Satellite Setting	<ul style="list-style-type: none">• Displays the current satellite signal strength.• Adjusts the time zone.• Turn Time Sync off by setting time zone to OFF (device receives date and time information from manual entry).
Camera Alert	Adjust speed alert notification style (Tone, Voice, or Off).
My Locations	Add/delete speed camera points.
Current Speed Display	Turn on to show current speed on LCD screen.

Speed Unit	Set speed measurement to miles per hour or kilometers per hour.
Video Settings	
Resolution	Choose recording in 1080P or 720P.
Record Interval	Select 2/3/5-minute recording interval for circular recording purposes.
Time Stamp	Turn time stamp in files On or Off.
Speed Stamp	Turn the speedometer On or Off.
Exposure Setting	Adjust display brightness.
Function Settings	
Automatic Recording	If set to On, automatic recording starts when the engine turns on.
Collision Detection	Adjust G-Sensor sensitivity. When the CAM945 is in normal recording mode, if a collision occurs at the minimum G-Sensor level set, then the CAM945 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.)
Parking Mode	When the vehicle is parked and Parking mode is set to either Motion Detection or Collision Recording, the device monitors motion or collision. When recording an event, it will include 5 seconds prior to the event on the saved file and record for 15 seconds. Refer to page 12 for more details.
Delay Shutdown	Delays shutdown after the vehicle turns off for 10 sec. if turned ON.
Frequency Setting	Set frequency to either 50Hz or 60Hz. Default for US/Canada is 60Hz.

File Management	
Play	Play back video and display photos.
Delete	Erase video or photos.
Format Card	Erase all files in memory card.
About	Display firmware version.

RECORDING BASICS

Automatic/Manual Recording

You can set the CAM945 to start recording when the vehicle's engine turns on, or you can turn off that function and begin record manually. Go through the Menu system (*Menu/Function Settings/Automatic Recording*) to turn this function ON or OFF.

Emergency Recording

At any given time, you may come across a situation such as an accident where you want to start recording. Press ● to start emergency recording if you are already recording. (Press ● twice if you are not already recording.) The CAM945 files emergency files in the microSD card's Emergency folder. The Emergency folder only holds 10 emergency files, regardless of the file size. If there are 10 emergency files saved, any new emergency file records over the oldest emergency file.

Collision Detection

You can determine how strong a collision needs to be for automatic collision recording to start. Set the G-Sensor level in *Menu/Function Settings/Collision Detection*. The device saves the currently recording file to the Emergency folder as an emergency file.

Collision Detection applies to vehicles that are moving. It does not apply to vehicles in Parking mode, where the vehicle's engine is turned off and Parking mode is active.

Parking Mode

Parking mode lets you set recording parameters for a parked car (*Menu/Function Settings/Parking Mode*). The Parking Mode menu provides 3 options:

- Off. Turns off Parking mode so that no recordings are triggered.
- Collision Recording. Select this to allow collision recording for the parked vehicle. Files are saved as video files in the Video folder.
- Motion Detection. Select this to allow motion detection for the parked vehicle. Files are saved as video files in the Video folder. After the vehicle engine stops (turned off), the device begins recording at that point regardless of whether or not motion is detected. Recording stops after about 10 seconds and the file becomes a reference to motion detection.

PLAYBACK BASICS

View on CAM945

Play back video files and view photos through *Menu/File Management/Play*. The screen displays 3 folders: Video, Emergency, and Picture.

The Video and Emergency folders contain video images you've taken. emergency files are stored separately from normal video files and are only copied over when there is no more space in the Emergency folder.

When you select a picture and the image displays on the screen, press ● to zoom up to 3 times.

View on Television

The CAM945 has an HDMI port where you can insert an HDMI cable (not included) to connect the device to your television. This lets you watch your video files on the television screen.

View on PC




Connect the CAM945 to your PC using a miniUSB to USB cable (not provided). Install the video player and view your files through it. See page 17 for details.


LANE DEPARTURE WARNING SYSTEM

The Lane Departure Warning System (LDWS) monitors lane markings by your vehicle and notifies you if you drift too close to these lines. With this function turned on, the screen displays yellow lines representing the lane markings as a caution as you approach the markings. As you drift too close to one of the lane markings, the line on the screen turns red and the device sounds a warning tone.

LDWS functions best when the lanes are clearly marked and free from obstructions. It is NOT a substitute for careful driving and paying attention to the road.

Go to *Menu/Function Settings/LWDS* to turn this function on and off.

HOW DO I ...?	DO THIS...
Turn the device on	To turn on the device, press  .
Start and stop recording	<ul style="list-style-type: none">• To start recording, press .• To stop recording, press .


HOW DO I ...?	DO THIS...
Start an emergency recording	<p>If the CAM945 is not recording, press ● twice (once to begin recording and once to start emergency recording).</p> <p>If the CAM495 is already recording, press ● once to start emergency recording.</p>
Turn the device off	<p>Press and hold . What happens after this depends on what features are active at the time.</p> <ul style="list-style-type: none"> • If Delay Shutdown and Parking mode are both off, the device will shut down immediately. • If Delay Shutdown is active but Parking mode is off, the device will shut down in 10 seconds. • If Parking mode is on but Delay Shutdown is off, a message displays for you to press ● to shut off immediately. If you do NOT press ●, the device will go into Collision Recording or Motion Detection mode (<i>Menu/Function Setting/Parking Mode</i>) after 10 seconds.
Take snapshots	While recording, press ▼ to take snapshots.
Delete files from the microSD card	Delete files through <i>Menu/File Management/Delete</i> .
Review video and photos on the CAM945	View files and photos through <i>Menu/File Management/Play</i> .

HOW DO I ...?	DO THIS...
Set the date and time	<p>For CAM945:</p> <ol style="list-style-type: none"> 1. Press M to access the menus. 2. Press ● twice to enter the <i>System Configuration</i> and <i>Date/Time</i> menus. 3. Use the ▼ and ▲ arrows to change the date and time and ● to move to the next field. 4. Press M to save the entry and back out of the menus. <p>For CAM945G and CAM945GT: These models receive date and time information from the GPS satellites they connects to. If there is a problem with the satellite connection, set the date and time manually.</p>
Lock files while recording	Press ● to change the recorded file setting to an emergency file. This will lock the file and save it to the Emergency folder.
Activate the Lane Departure Warning System	Set this feature to ON or Off through <i>Menu/Function Settings/LDWS</i> (see page 13).
Activate Parking Mode	Select either Collision Recording or Motion Detection through <i>Menu/Function Settings/Parking Mode</i> (see page 12).

HOW DO I ...?	DO THIS...
Save files from the microSD card to the PC.	<ol style="list-style-type: none"> 1. Connect the CAM945 to the PC using a miniUSB to USB cable (not included). 2. The PC treats the CAM945 as a removeable drive. Navigate to it and locate the files you want to save. 3. Copy the files to your PC.
G945G and G945GT Only	
View GPS data on the PC.	GPS data displays through the Video Player (see page 17).
View recorded files on the PC	Use the Video Player (see page 17) to view recorded files.
Save a red light/speed camera location	<ul style="list-style-type: none"> • While recording, press and hold ▲ to add the camera's GPS location to a list of manually added cameras. • Manually camera locations through <i>Menu/GPS Settings/My Locations</i>.

CAM945G AND CAM945GT ONLY FEATURES

GPS

This feature provides the GPS location where the device is. As the vehicle moves, that position is continuously updated. When GPS is turned on,  displays.

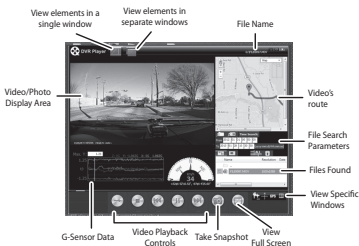
Press **M** to set the following GPS elements through the menus (*Menu/GPS Settings*).


Satellite Setting	Displays the satellite status and lets you adjust the time zone setting.
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Camera Alert	Adjust speed alert notification style (Tone, Voice, or Off).
My Locations	Manually add/delete speed cam points. Deleting speed cam points only deletes the manually added points in the database.
Current Speed Display	Turn on to show current speed on LCD screen.
Speed Unit	Set speed measurement to kilometers per hour or miles per hour.



CAM945G/CAM945GT VIDEO PLAYER

When you install the CAM945 video player software onto 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.



1. Go to www.unidensupport.com and download the CAM945G/CAM945GT video player software onto your PC. Follow the prompts to run the software.
2. When the Video Player screen displays, select  to display all

elements compiled into a single window or  to display the elements in individual windows.

1. Turn the CAM945G or CAM945GT off. Connect the device to the PC with a miniUSB to USB cable (not provided).
2. From the Video Player screen, click  (Import Media Files) or  (Search Media Files). The files display in the File List window.
3. Double-click the file to play.

RED LIGHT/SPEED CAMERA ALERTS (CAM945GT ONLY)

The CAM945GT has a built-in database containing red light and speed camera locations (points). As you approach one of these points, the device alerts you according to how the alert notification is set (*Menu/GPS Setting/Camera Alert*). Press and hold ▲ to add the current GPS location to the database.

Delete all manually-added points from the database through *Menu/GPS Setting/My Locations*.

MAINTENANCE

Use common sense when caring for your CAM945. Be sure the lens remains clean and free of debris.

Do not leave the camera exposed to high temperatures. Remove it and store out of the heat.

Do not operate the device outside the following temperature range:
14° F ~ 140° F.

Because the camera has an internal Lithium Polymer battery, contact your local waste disposal department to dispose of it according to local laws and regulations.

Clear out unwanted recordings to free up space in your microSD card through *Menu/File Management/Delete*.

TROUBLESHOOTING

<i>If...</i>	<i>Try this...</i>
"File Error" appears when photos or video are replayed.	Format card error. Reformat your MicroSD card through <i>Menu/Files Management/Format Card</i> .
You cannot record video or take photos.	<ul style="list-style-type: none">• Check the microSD card; it might be out of space. Either delete files from that microSD card or use a new microSD card.• Check if the microSD card is locked. Unlock it if so.
Video is unclear.	Clean the lens and the windshield.
You cannot access menus.	<p>If you are recording and press M, the menus should display.</p> <ul style="list-style-type: none">• If you are still recording, press ▼ to stop recording.• Try pressing other buttons. <p>If there is no response or recording does not stop, reset your device (see page 4).</p>

SPECIFICATIONS

Screen	2.4 in. LCD
RAM	DDR3
Operating Systems Supported	Windows 2000/XP/Vista/7/8/8.1 Mac OS 10+/LINUX (webcam/storage)

Operating Temp.	14° F ~ 140° F (-10° C ~ +60° C)
Storage Temp.	-4° F ~ 158° F (-20° C ~ +70° C)
Working Humidity	10 ~ 90%
Storage	microSD (up to 32GB), Class 6 and above
AV Input/Output	USB 2.0
View Angle (each lens)	148° (wide angle)
Zoom	4X digital zoom
Power Supply	<ul style="list-style-type: none"> 12V Cigarette Car Charger Input: 12V~24V Output: DC5V/1A 250mAh Built-in Lithium Polymer battery (10 min)
Sensor Type	CMOS
Image Sensor	1/3"
Video Frame Rate	30fps
Sound Recording	Yes (built-in microphone)
Channels	1
G-sensor	Yes
GPS	Yes (CAM945G and CAM945GT)
Video Format	MOV
Photo Resolution	16M/12M/10M/8M/5M/3M
Video Codec	H.264 (avc1)
Audio Codec	PCM

FCC/INDUSTRY CANADA INFORMATION

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 must accept any interference received, including interference that may cause undesired operation.

Unauthorized changes or modifications to this equipment may void compliance with the FCC Rules. Any change or modification must be approved in writing by

Uniden. Changes or modifications not approved by Uniden could void the user's authority to operate the equipment.

L'appareil est conforme aux normes d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes : (1) Ce dispositif ne doit pas causer d'interférences et (2), il doit pouvoir accepter les interférences, incluant celles pouvant nuire à son fonctionnement normal.

Tous les changements apportés à cet appareil, s'ils ne sont pas expressément approuvés par Uniden ou toute utilisation de celui-ci d'une autre manière que celle décrite dans ce guide peut annuler votre autorisation de le faire fonctionner.

ONE-YEAR LIMITED WARRANTY

Important: Save your receipt! Evidence of original purchase is required for warranty service.

WARRANTOR: Uniden America Corporation ("Uniden") **ELEMENTS OF WARRANTY:** Uniden warrants, for one year, to the original retail owner, this Uniden Product to be free from defects in materials & craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user shall terminate & be of no further effect 12 months after the date of original retail sale. The warranty is invalid if the Product is (A) damaged or not maintained as reasonable or necessary, (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) improperly installed, (D) serviced or repaired by someone other than an authorized Uniden service center for a defect or malfunction covered by this warranty, (E) used in any conjunction with equipment or parts or as part of any system not manufactured by Uniden, or (F) installed or programmed by anyone other than as detailed by the owner's manual for this product.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will either, at its option, repair or replace the defective unit & return it to you without charge for parts, service, or any other cost (except shipping & handling) incurred by warrantor or its representatives in connection with the performance of this warranty. Warrantor, at its option, may replace the unit with a new or refurbished unit.

THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE & ENTIRE WARRANTY PERTAINING TO THE PRODUCT & IS IN LIEU OF & EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, & you may also have other rights which vary from state to state. This warranty is void outside the United States of America & Canada.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in the owner's manual you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). The Product should include all parts & accessories originally packaged with the Product. Include evidence of original purchase & a note describing the defect that has caused you to return it. The Product should be shipped freight prepaid, by traceable means, to warrantor at:

Uniden America Service
C/O Saddle Creek
743 Henrietta Creek Rd., Suite 100
Roanoke, TX 76262

(800) 297-1023, 8 a.m. to 4:30 p.m., Central, Monday through Friday