



ECO VEDR/OCTOBOX 4V VEDR – Technical Manual



Introduction

OCTOBOX 4V VEDR: Driving Recorder

V.E.D.R.: Video Event data Recorder

DIT: Digital Image Tachometer

Please read this technical manual before starting the OCTOBOX 4V VEDR installation.

We do not assume any responsibility for accidents caused by improper use, installation or tampering of OCTOBOX 4V VEDR.

Keep with care your guarantee certificate.

The included operational software is designed to work on Windows 7 / Windows 8 environment.+

There may be some differences between the information in this manual and your product due to updates of the date of printing.

General Warnings

For a correct and safe use of OCTOBOX 4V VEDR

Do not open or try to repair the system.

Repair or attempted repair unauthorized determine the termination of the warranty conditions.

Do not use water, chemicals, detergents or other liquids to clean the system. Remove dirt or dust with a dry cloth.

The camera should be cleaned using a cloth of the type used for optical cameras.

Prevent liquids from coming into contact with the system. Liquids can damage the electrical circuits and cause fire or shock.

Protect the system from shocks that can damage the mechanical and electronic components.

To work properly, the system requires a clear field of view.

Do not place anything in the front of the system. Do not leave objects near the windshield that may generate shadows or reflections on the inside of the glass, distorting or obscuring the captured images.

The system must be facing the right way and be firmly fixed.

The windshield, in the visual field of the system, must be kept clean on both sides (internal and external).

Dirty glass can make recorded images unusable.

According with your settings that limit the activation of the system, some events of small intensity can not generate enough force to activate the automatic recording.

Some events of high intensity can displace, or cause damage to the interruption of power supply. In these cases it is not guaranteed images recording.

In general, OctoCam srl It is not responsible in any way of non-registration of an event from the device, whatever the cause determinant and also in a state of perfect functioning of the same, as it is not technically possible to guarantee the intervention of the system in 100% of cases, considering numerous and / or exogenous variables which take part in the accident dynamic.

It is forbidden to intervene on the device or do any operation on board while driving.

The ability to use data acquired from OCTOBOX 4V VEDR as evidence in legal proceedings, depends on the laws and rules in force in the local jurisdiction.

The internal clock system (real time clock delegate to calculate the date and time) is assigned automatically based on the time coordinates acquired by the GPS system. Anyway when the RTC battery is replaced, the information is lost. In this case the temporal coordinates may not be valid until the reception



of a new valid GPS signal.

The system is designed to be powered using connection to a supply line 'sub-key' accessible for example in the fuse compartment of the vehicle.

In case of intervention on the electrical system of the vehicle please consult an electrician or professional mechanicians.

OctoCam srl It is not responsible in any way for problems caused by the installation of OCTOBOX 4V VEDR performed by unskilled personnel.

The data recorded by the system can be transferred using the SD memory card on PC platforms with SO Windows 7 or 8. The transfer is possible even over Wi-Fi through the use of the app downloadable from PlayStore (for Android devices) or AppStore (Apple devices).

The system is designed to meet the specific EMI in Europe and USA.

It is recommended to place the system at least 10 cm from the GPS antennas, DMB, DAB, etc. in order to reduce any possible interference.

The bundled software uses the link to Google Maps.

OctoCam Drive Recorder is a device protected by numerous international patents and a specific customs code.

All products OctoCam are CE - FCC - E-Code.

OctoBox 4V got the Test Certificate of Compliance to CEI 79-56.

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1 Product Description

1.1 Package content

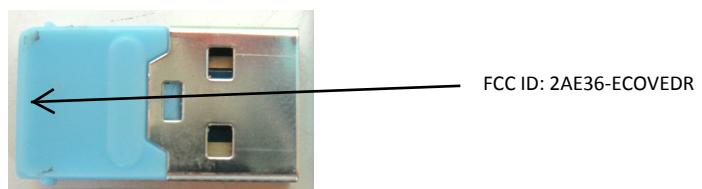
Package includes :

1. OCTOBOX 4V VEDR
2. Power Cable extension
3. Special Key for the security screw
4. CD with operational software

The memory drive (MicroSD HC CL. 10) is sold apart. For any information please contact info@octocam.it



1.2 OCTOBOX 4V VEDR part identification





2 OCTOBOX 4V VEDR

OCTOBOX 4V VEDR belongs to the class of products called 'Video of Event Data Recorders', identified in the international environment by the acronym Vedr (Video Event Data Recorder).

The systems V.E.D.R. operate in motor vehicles and have the function of producing a visual documentation accompanied, optionally, with extra data such as the temporal and geographical coordinates and acceleration data recorded during the event.

OCTOBOX 4V VEDR also incorporates an additional function, called DIT (Digital Image Tachometer), which allows acquisition and the continuous storage of the geographical data accompanied by all the auxiliary data available independently from the assertion of event conditions.

2.1 *Hardware Description*

OCTOBOX 4V VEDR is made from a microcontroller processor unit interfaced with several integrated sensors and devices:

- a) video sensor
- b) accelerometric sensor
- c) GPS Real Time Clock

Are also included these peripheral for the user interaction:

- a) MicroSD card slot
- b) Button 'Manual Recording'
- c) Signaling Status Led
- d) Wi-Fi interface

In accordance with the Italian Privacy act, OCTOBOX 4V VEDR is not able to record any audio data.

2.1.1 **Video Sensor**

Video sensor CMOS $\frac{1}{4}$ " is able to work in minimum light conditions of 1 lux; acquisition parameters as blow:

H.264 compression technology, 25fpsm 4Mbps.

The video sensor view angle, determined by crystal lens placed on the lens, has an opening equal to 100 °.



2.1.2 G sensor

The accelerometric sensor continuously generates three analog signals relating to the acceleration values detected on the X, Y and Z axis.

X axis: It is aligned with the vehicle travel direction

Y: It is perpendicular to the axis X and is associated lateral acceleration

Z axis: is orthogonal to the axes X, Y and is associated to the vertical axis.

The acceleration values on the three axes acquired are included in the field:

X: 0.78 ~ 1.76GY: 0.78 ~ 1.76GZ: 0.98 ~ 1.95G

2.1.3 GPS Sensor

The GPS satellites 20 is integrated in the system and is able to acquire the position coordinates and time of the system.

OCTOBOX 4V VEDR uses the position information and time to determine the average speed and also to upgrade the system real-time clock integrated.

GPS signal reception depends on environmental factors that determine the visibility of the satellites. The status of GPS signal reception is notified by the alarm LED 'GPS' on the rear of the camera body.

2.1.4 Real Time Clock

The 20 satellites GPS is integrated in the system and is able to acquire the position coordinates and time of the system.

OCTOBOX 4V VEDR uses the position informations and time to calculate the average speed and also to upgrade the system real-time clock integrated.

The GPS signal reception depends on environmental factors that determine the visibility of the satellites.

The status of GPS signal reception is notified by the alarm LED 'GPS' on the rear of the camera body.

2.1.5 Backup Battery

In case of serious accidents there is the possibility that the event determines the interruption of OctoBox Powerline supply.



The data related to the event are, in this case, recorded using the backup battery resident on board OCTOBOX 4V VEDR. In this case the registration is maintained until the conditions exist to ensure proper storage of information on Micro SD card.

In this condition, the frame rate may be slightly lower than the frame rate in conditions of normal supply.

2.1.6 MicroSD slot

OCTOBOX 4V VEDR uses Micro SDHC Class 10 cards featuring a storage capacity between 8 Gbytes and 32 Gbytes.

The card must be formatted with the FAT32 file system.

Functions V.E.D.R. and D.I.T. require the presence of the micro SD card.

2.1.7 Emergency button

The emergency button is placed in the central part of the machine body. It allows manual activation of the recording mode.

The use of the recording button manual is recommended if the event conditions are not such as to determine the assertion of the event condition automatically.

2.1.8 Status LED

OCTOBOX 4V VEDR has three LED detectors positioned in the rear part of the machine body:

REC: recording in progress and power status

GPS: GPS Status

WiFi: Wi-Fi connection

2.2 Firmware Description

'Firmware' is the software installed on board of OCTOBOX 4V VEDR which allows the execution of all the functions described below.



It's possible to update the system firmware with any versions released after the date of purchase using the micro SD card.

OCTOBOX 4V VEDR performs the following main functions:

1. V.E.D.R.
2. D.I.T.
3. Countinous recording

V.E.D.R. data recording

V.E.D.R. data are recorded on the micro SD memory used by the device.

Is required the presence of SD card in order to activate the V.E.D.R. mode. Otherwise the device will not record any kind of data.

Countinous recording

Countinous recording V.E.D.R. data are recorded on the micro SD memory used by the device.

Is required the presence of SD card in order to activate the continous recording mode. Otherwise the device will not record any kind of data.

D.I.T. data recording

D.I.T. data are recorded on the microSD card one time each 10 seconds. D.I.T. are composed by, GPS position, time, date and speed.

D.I.T. data are countinously recorded indipendently from V.E.D.R. or continous recorded mode.

D.I.T. can storage the last 120 days of device activity, after this threshold the incoming data will overwrite the elders.

2.2.1 V.E.D.R. mode

OCTOBOX 4V VEDR during V.E.D.R. function records event data on the micro SD card used as system memory.

It's defined as event an environment condition recognized as important (manually or automatically); in detail OCTOBOX 4V VEDR handles following situations:

Event Automatic Assertion
Event Manual Assertion

Recording procedure consists in the data transfer on the SD memory of the following data saved during the acquiring period:

Video Recording
G sensors data (tri-axial)
GPS positioning data
Date and time
Speed



The system starts saving two 30 seconds block videos at the startup. If nothing is recognized as a possible event these two blocks are overwritten with new data. If an event is recognized (g-sensors thresholds are exceeded or a dual activation through the Emergency rec button) video blocks are saved and marked as an event. Also the following block will be marked as event. So in case of event OCTOBOX 4V VEDR will save three 30 seconds video block: the one where the event took place, the previous one and the following one, obtaining 90 seconds recording.

These three blocks are saved separately to let the user a more flexible usage.

Using an 8Gb microSD it's possible to record up to 6 hours recording.

To avoid accidental overwriting of an important event it's necessary to shut down the system or remove the micro SD card from the device.

It is recommended transferring important information as soon as possible to the PC using SD flash card.

The software ECO Ved Player lets you perform all the functions necessary for the management of the data contained in micro SD memory card.

2.2.1.1 Event automatic assertion

V.E.D.R. system, analyzing the G sensor data during the travel, can recognize automatically the 'event' condition.

When the vehicle is involved in an impact or, in specific conditions where g-sensor collected data exceeds the threshold setted on the three axis, OCTOBOX 4V VEDR asserts the 'event' condition and starts the recording procedure.

The threshold value setted on the three axis can be modified from the control panel to adapt the device to the vehicle.

This classification let handle the different type of event:

If the maximum number of recorded events it's reached the new incoming events will overwrite the older one.

If an event is correctly recognized and recorded the system assumes this status:

Automatic event recording:

Led REC starts blinking 1 time per second

End of automatic recording:

Led REC starts blinking one time each 5 seconds.



2.2.1.2 Manual Event Recording

Push the Black button on the rear part of the device to activate the manual event recording.

It's recommended to use the manual activation in case of light accident and the automatic recording is not activated.

If the maximum number of recorded events it's reached the new incoming events will overwrite the elder one.

If an manual recording event is correctly recognized and recorded the system assumes this status:

Automatic event recording:

Led REC starts blinking 1 time per second

End of automatic recording:

Led REC starts blinking one time each 5 seconds.

2.2.2 DIT (Digital Image Tachograph)

D.I.T. works correctly only if the GPS signal is stable and received correctly from the device. One time each 10 seconds following informations are recorded in a specific file

GPS Coordinate

Date - Time

Speed

2.2.2.1 D.I.T. recording period

D.I.T. function can record data up to 120 days, when this threshold is reached new incoming data will overwrite the oldest.

2.2.2.2 D.I.T. recording period

When the device is powered and the micro SD card is inserted, DIT data will be stored one time each 10 seconds.



2.2.3 Continous recording mode

Continous recording mode works only if the micro SD card is inserted in the device.

Continous recording mode starts at the device startup, this function can be enabled and disabled through the settings panel on the bundled software.

The activation and deactivation and operating status of the "Continous recording mode" is notified as follows:

REC LED: blink one time each 5 seconds.

2.2.3.1 Continous recording recording period

OCTOBOX 4V VEDR can record up to 15 hours in continous recoding mode using a 8Gb SD card.

Videos are stored on the microSD card, when the memory is full new incoming data will overwrite the oldest.

2.2.3.2 Video recording period

In the continous recording mode, OCTOBOX 4V VEDR will save all movies regardless of the presence of G-sensors shock or manual activation.

In case of G-shock or manual activation these events will be marked as G (G-shock) or F (Forced event) exactly as in the V.E.D.R. mode.

2.2.4 System status

It is possibile to identify 4 different system status:

- Start up
- normal Behaviour
- Error or anomaly
- Shut down



2.2.4.1 Start up

When the system is powered during the startup OCTOBOX 4V VEDR autocheck all the peripherals and the correct functioning.

During the startup three LEDs on the rear part are switched on simultaneously, then off.

If not detected errors and anomalies, the system switches to normal operation mode.

If errors are found or anomalies are assumed the error status.

2.2.4.2 Normal operation mode

In normal operation mode is notified by using the REC LED flashes constantly once every 5 seconds.

In normal mode are activated the following functions:

- V.E.D.R.
- D.I.T.
- Continuous recording, if the mode is activated from the control panel of the application software.

The system performs cyclically diagnostic procedures and if errors are found or abnormalities, then changes to the error status.

2.2.4.3 Error status

The error status of fault is reported with the power LED permanently switched on.

In case of error or anomaly perform a reboot (power off - power on) or hold pressed the REC button on the camera body for 10 seconds. After this device will reboot automatically. If this condition persists, call your service.

2.2.4.4 System shutdown

If the system detects the power end will perform a 'shut-down' as follows:

All LEDs switched off.



2.2.5 Led signal table

LED	Aspect	Description
REC	Switched off	1. No power
	Blinking	1 time each 5 seconds: device activated 1 time each 1 seconds: event recognition
	Switched on	Error status
GPS	Blinking	Searching for a valid GPS signal
	Switched on	GPS position acquired
Wi-Fi	Switched off	No smartphone connected to the device
	Switched on	Smartphone connected to the device

2.2.6 Firmware upgrade

If you need to update the system firmware (for example in the case of future functional enhancements) proceed as follows:

1. Download the file of the official site 'last firmware revision issued.'
2. Connect the SD card to the P.C.
3. Copy the firmware update file on the SD card in root directory of the SD card.
4. Insert the SD card on OCTOBOX 4V VEDR under apparatus off.
5. Feed OCTOBOX 4V VEDR



During the upgrade process does not perform any control on the apparatus, do not remove the power supply, do not remove or take action on the SD card.

After the startup, if the system switches to normal operation mode (REC indicator flashing), the system is updated.



3 Application software ECO VEDR Player

3.1 *System requirements*

Application software ECO Web Player has been developed to run on PC platforms with the following characteristics:

Minimum requirements:

CPU: i5 Memory: 8GB DDR3 Display Card: 1G RAM

Operating system:

Windows 7

Windows 8

Recommended screen resolution:

(1) 1440 x 900

(2) 1280 x 800

(3) 1920 x 1080

The PC platform will also have available a reading gate micro SD card or a USB port on which to place an additional micro SD card adapter / USB.

3.2 *Installation*

The installer of the application software "ECO Web Player" is preloaded on the SD card supplied.

Insert the SD card on the door 'card reader' or via an adapter

SD / USB on an available USB port.

View through windows explorer, the logical unit assigned to the SD card and start the process by double clicking on the file:

setup.exe

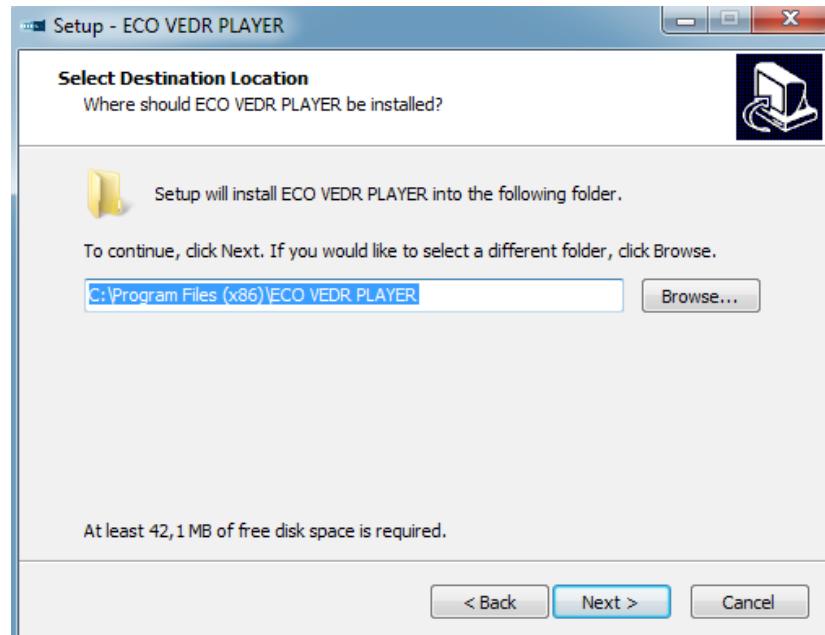
in the root directory of the SD card.

After a few seconds you will display the following window:



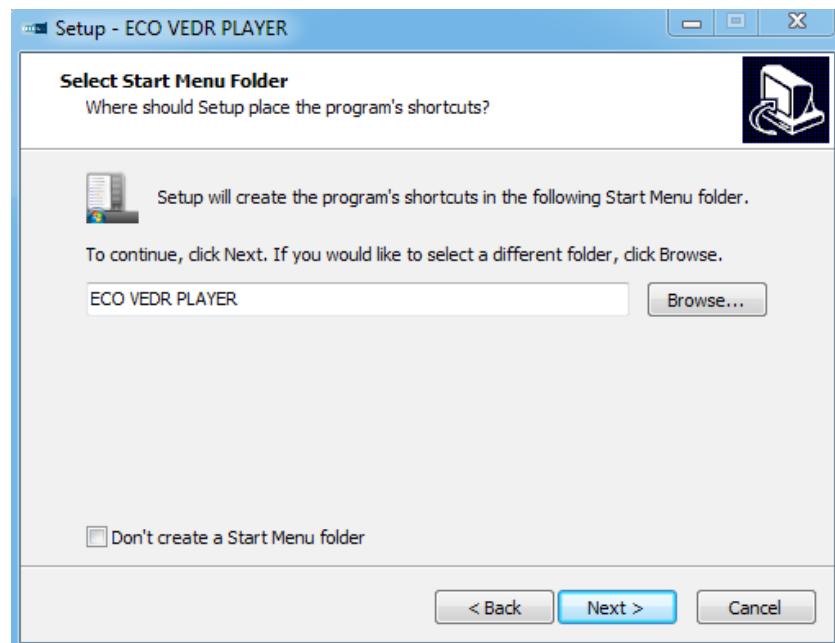
Press Next.

This windows is shown

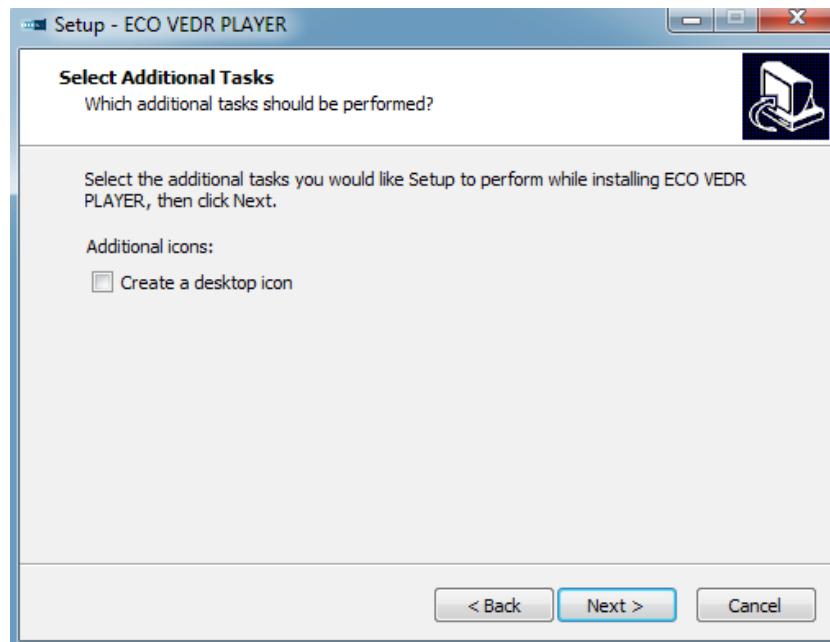




Press next

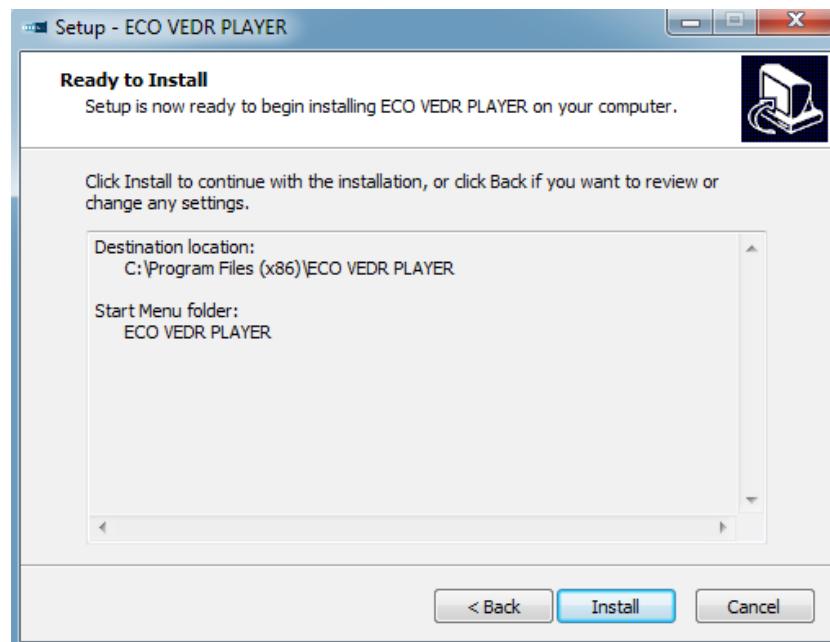


Press next



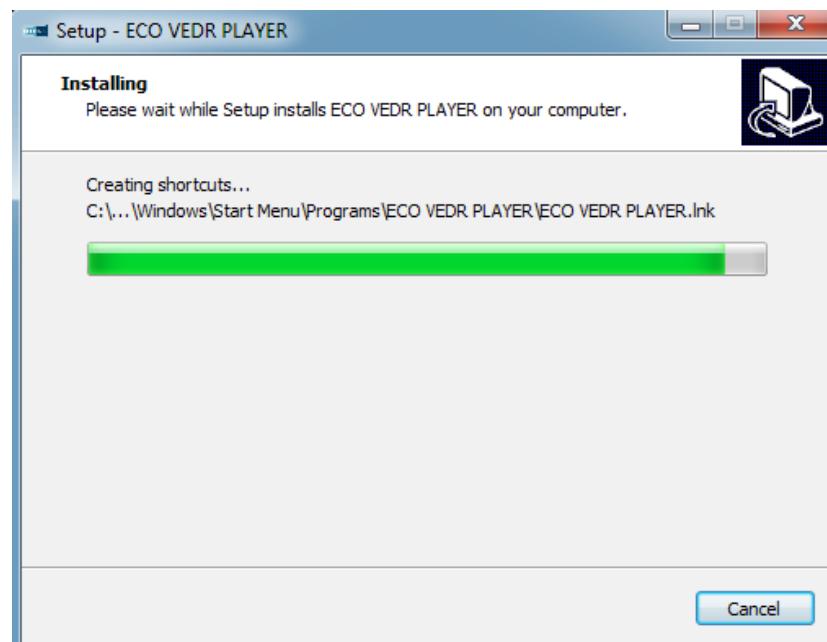


Press Next



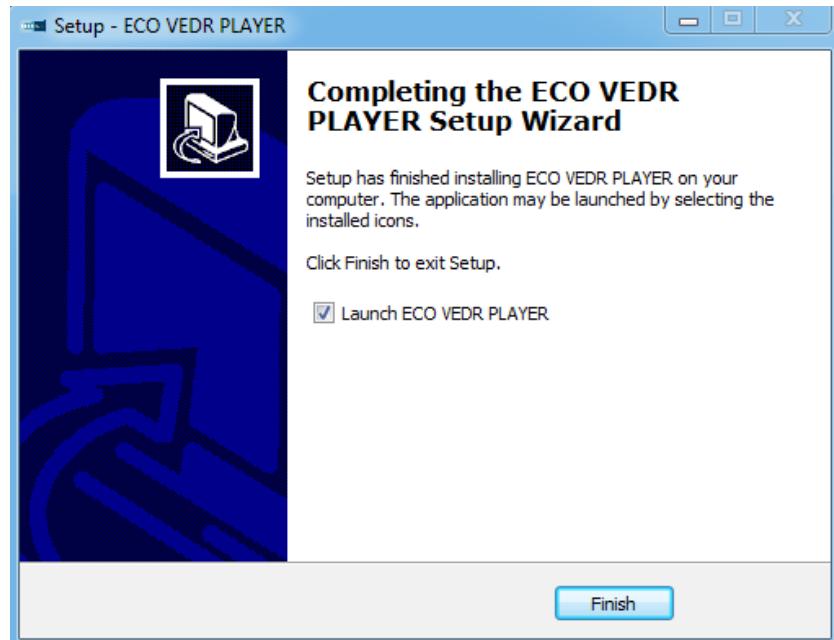
Check the installation data and press the Install button

Wait for the installation process





After installation a window confirms the success of the same.



3.3 SD Card

OCTOBOX 4V VEDR can operate with a micro SD card HC Class 10 of a capacity equal to:

8GB, 16GB, 32GB.

It is possible that the use of cards of high capacity entails an increase in processing time required by the data transfer operations.

The SD card must be formatted with the FAT32 file system. Use the SD card exclusively for the functions provided by the management software OctoCam ECO Vedr Player.

The directories and files contained in it may not be altered in any way.

The change of the data content of the SD card (add, edit or deletion of files / folders present in it) can determine the inability to obtain data which may be registered. In this case the board can be reused only if completely erased (folders and files).

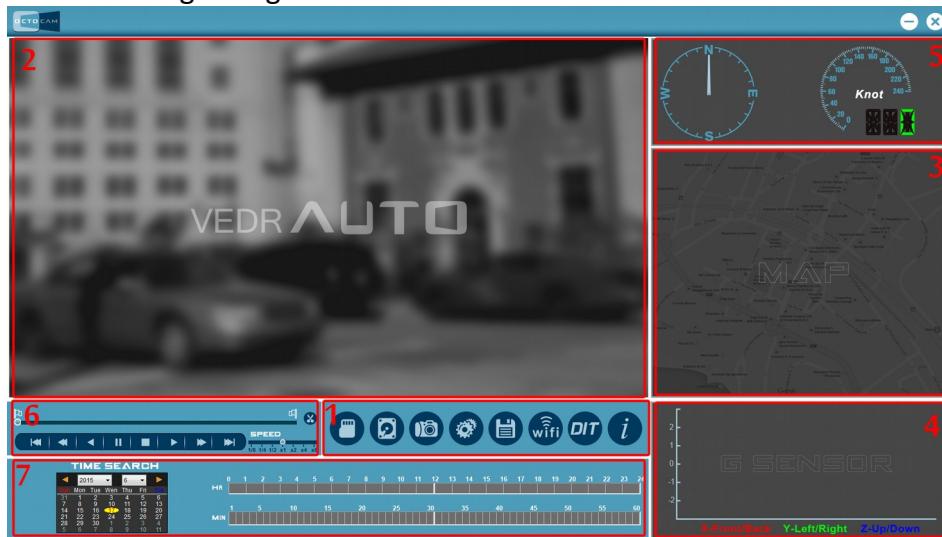


3.4 ECO Vedr Player

The program ECO Web Player is activated by accessing the following path:

Start -> Programs -> OctoCam ECO -> ECO VEDR Player

You will then see the following dialog:



(1) Buttons menu

Features: Display SD, Playback, Snapshot, Configuration, rescue events, configuration wifi, DIT, info

(2) Window display events

Alternately displays the data will see or DIT.

(3) Window display cartography

View the Maps mapping / satellite / mixed obtained from Google Maps™ of recorded data.

(4) Display window graphics

View graphs of data acceleration / impact / speed.

(5) Window display information speed and direction

(6) Progress bar

View the progress of the current operation in progress and control movie playback.

(7) Time Search

Panel for viewing movies divided by date and time.



3.4.1

3.4.1.1 Buttons menuSD List



This button allows you to view movies on the device's microSD card. The micro SD card must be connected to the PC.

Pressing the dedicated button will open the panel shown in the figure: to display data on micro SD card will be sufficient select them the "Removable Storage" at the top of the panel and select the drive letter associated with the device Micro SD. Events are activated double-clicking. Events will be played in chronological order.

3.4.1.2 Open an existing file

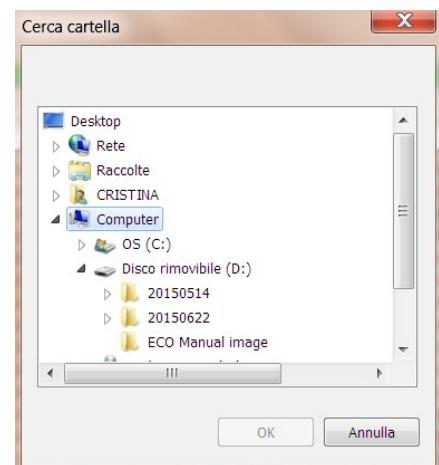


This function opens a file from PC and saved previously in another session.
Pressing the button will open the following panel that allows the navigation through the operating system folders to scan for saved files.
Pressing the button "Browse ..." you enter the navigation menu to access the memory location where you saved the file.

Double-click on the interested event to start playback.

ID	RECORD TIME	EVENT TYPE	TIME END	Total Tim
1	2015-06-17 08:57:32	Record Start	2015-06-17 08:58:02	00:00:30
2	2015-06-17 08:58:02	Push Button By Event	2015-06-17 08:58:32	00:00:30
3	2015-06-17 08:58:32	Push Button By Event	2015-06-17 08:59:02	00:00:30
4	2015-06-17 08:59:02	Push Button By Event	2015-06-17 08:59:32	00:00:30
5	2015-06-17 08:59:32	Record Start	2015-06-17 09:00:02	00:00:30
6	2015-06-17 09:00:02	Record Start	2015-06-17 09:00:29	00:00:27
7	2015-06-17 09:00:29	Record Start	2015-06-17 09:01:29	00:00:30
8	2015-06-17 09:01:29	Record Start	2015-06-17 09:01:59	00:00:30
9	2015-06-17 09:01:59	Record Start	2015-06-17 09:02:29	00:00:30
10	2015-06-17 09:02:29	Record Start	2015-06-17 09:02:59	00:00:30
11	2015-06-17 09:02:59	Record Start	2015-06-17 09:03:29	00:00:30
12	2015-06-17 09:03:29	Record Start	2015-06-17 09:03:59	00:00:30
13	2015-06-17 09:03:59	Record Start	2015-06-17 09:04:29	00:00:30
14	2015-06-17 09:04:29	Record Start	2015-06-17 09:04:59	00:00:30
15	2015-06-17 09:04:59	Record Start	2015-06-17 09:05:29	00:00:30
16	2015-06-17 09:05:29	Record Start	2015-06-17 09:05:59	00:00:30
17	2015-06-17 09:05:59	Record Start	2015-06-17 09:06:29	00:00:30
18	2015-06-17 09:06:29	Record Start	2015-06-17 09:06:59	00:00:30
19	2015-06-17 09:06:59	Record Start	2015-06-17 09:07:29	00:00:30

ID	RECORD TIME	EVENT TYPE	TIME END	Total Ti...
1	2015-09-03 12:2...	Record Start	2015-09-03 12:2...	00:00:05
2	2015-09-03 13:2...	Record Start	2015-09-03 13:2...	00:00:01
3	2015-09-03 17:4...	Record Start	2015-09-03 17:4...	00:00:17
4	2015-09-04 15:2...	Record Start	2015-09-04 15:2...	00:00:17
5	2015-09-04 15:4...	Push Button By E...	2015-09-04 15:4...	00:00:30
6	2015-09-04 15:4...	Push Button By E...	2015-09-04 15:4...	00:00:30
7	2015-09-04 15:4...	Push Button By E...	2015-09-04 15:4...	00:00:30
8	2015-09-07 16:0...	Record Start	2015-09-07 16:0...	00:00:12
9	2015-09-09 13:0...	Record Start	2015-09-09 13:0...	00:00:13
10	2015-09-09 13:5...	Record Start	2015-09-09 13:5...	00:00:01
11	2015-09-09 14:0...	Record Start	2015-09-09 14:0...	00:00:00
12	2015-09-09 14:2...	Record Start	2015-09-09 14:2...	00:00:02
13	2015-09-09 14:2...	Record Start	2015-09-09 14:2...	00:00:00
14	2015-09-09 15:4...	Record Start	2015-09-09 15:4...	00:00:01
15	2015-09-09 17:0...	Record Start	2015-09-09 17:0...	00:00:02
16	2015-09-10 05:0...	Record Start	2015-09-10 05:0...	00:00:17
17	2015-09-10 05:1...	Record Start	2015-09-10 05:1...	00:00:01
18	2015-09-10 05:4...	Record Start	2015-09-10 05:4...	00:00:01
19	2015-09-10 08:1...	Record Start	2015-09-10 08:1...	00:00:01
20	2015-09-10 08:2...	Record Start	2015-09-10 08:2...	00:00:01
21	2015-09-10 08:3...	Record Start	2015-09-10 08:3...	00:00:01
22	2015-09-10 10:0...	Record Start	2015-09-10 10:0...	00:00:02

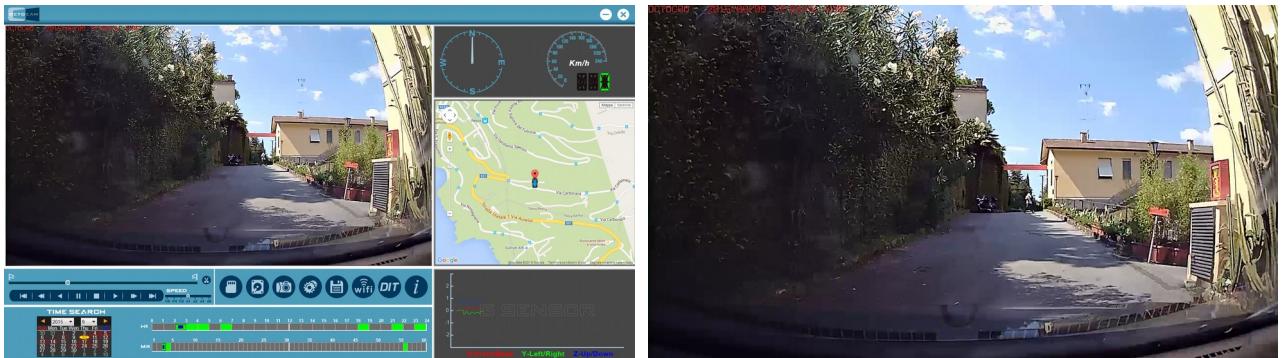


3.4.1.3 Snapshot





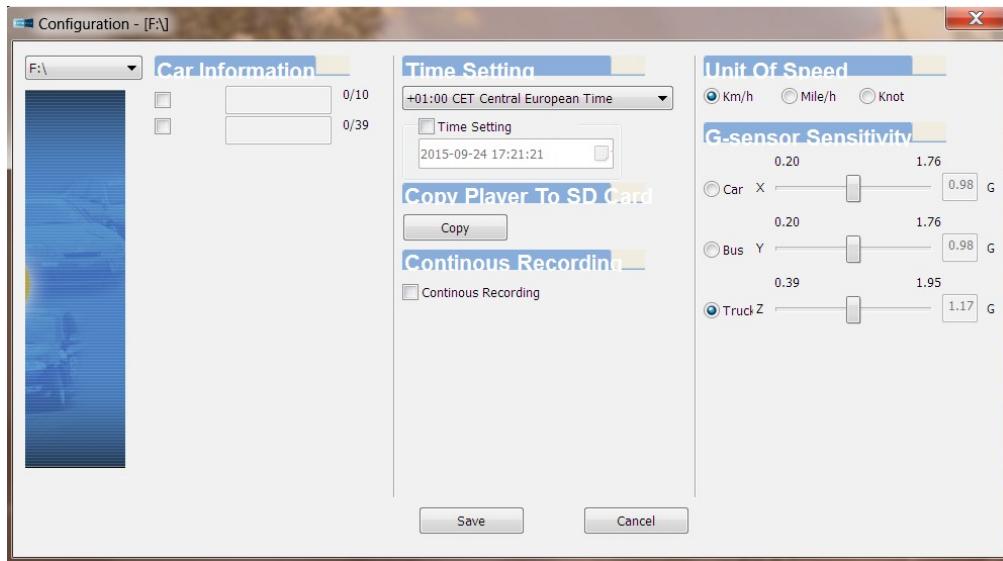
The snapshot function allows you to extract a frame from an event. This frame is saved as a BMP image file in the installation folder of the program in the Snapshot subfolder.



3.4.1.4 Settings panel



With this function you can set the device OCTOBOX 4V VEDR to activate this panel the micro SD card in the device must be inserted into the computer. Activating the function will open the following panel.



To access the configuration of the card must first select the correct drive letter from the panel in the left corner. Selecting the correct drive is enabled to proceed with the configuration. Any changes made will take effect at the reintegration of the micro SD card in the device OCTOBOX 4V VEDR, after powering the same.



3.4.1.4.1 Car Information

These two fields show two free text to the user's choice. You should be activated with the flag of choice and duly compiled this text will overlap the video during recording. It is suggested to fill these fields with the vehicle plate or any unique identifier of the vehicle and / or driver.

3.4.1.4.2 Time setting

This field contains a menu for selecting the time zone and the correct time. The system does not allow either the automatic switch the Daylight Saving time ON/OFF.

3.4.1.4.3 Copy player to SD card

This function allows you to make a copy of the software in use on the microSD.

3.4.1.4.4 Continous recording

This section allows you to switch from recording event, where movies are saved only generated as a result of manual activation (REC Button) or activation accelerometer (G Force), the continuous recording mode where all movies are saved in a single stream regardless of the presence or absence of manual activations or G-Shock.

3.4.1.4.5 Unit of speed

This section allows you to select the preferred unit of measurement for speed. The proposed options are km / h mph and knots.

3.4.1.4.6 G-Sensor Sensitivity

This panel allows configuration of the device g-sensors and then setting the thresholds that reveal the assertion of events based accelerometer.

The software offers three standard configurations for different type of dimensions and for each category offers a range within which to set thresholds on the 3-axis accelerometer:

Car: for vehicles and other means of small size

Bus: For buses and medium-sized

Truck: for trucks and large vehicles.

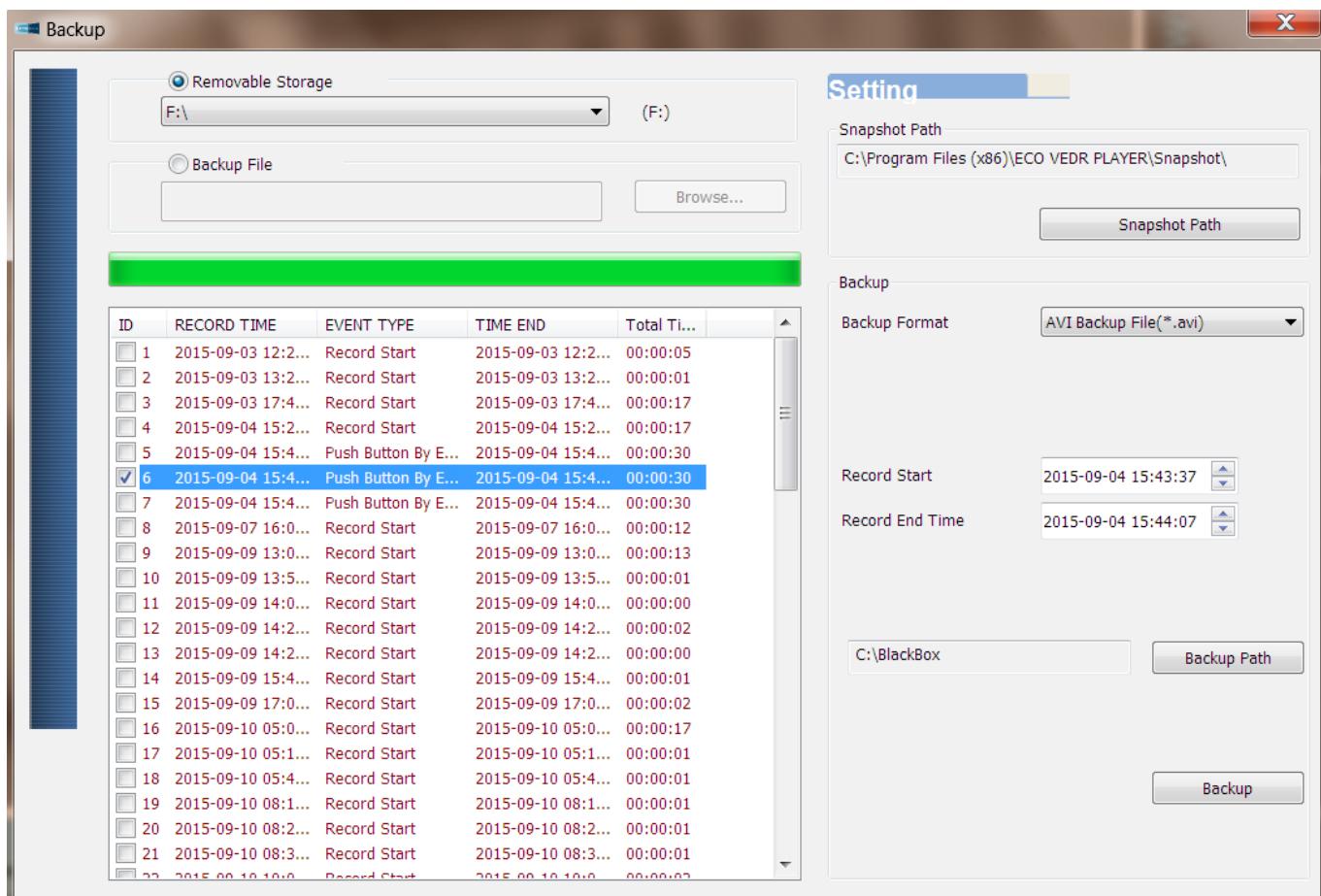
It is recalled that each configuration performed will be reported in the system log in the event of need for diagnostic



3.4.1.5 Backup



The backup function allows you to save movies on your PC in AVI format. Selecting the icon it's possible to have access to the following panel. The function works only with the micro SD card inserted into the PC.



First select the drive letter of the micro SD card. This will have access to the list of movies available. Selecting the video you can decide where to save (backup path) and possibly reduce the section of interest by choosing the time to start and end within 30 seconds. Confirm with the Backup button.

3.4.1.6 Wi-Fi Settings



The function allows you to create a Wi-Fi network to connect to OctoBox 4V. If you do not access this panel the default parameters for the network are SSID OCTOCAM // 12345678 PWD.



We strongly suggest to customize these parameters to prevent third individuals get access to device and enter in possession of the data of your device. OctoCam is not responsible in any way for any unauthorized access to OCTOBOX 4V VEDR.

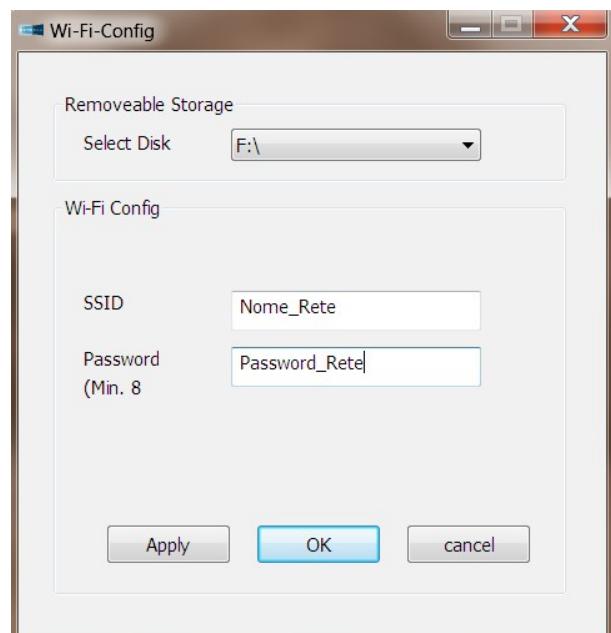
Like all previous functions you need to configure the correct drive letter on the device's microSD card (which, as for all other functions configurations must be inserted into the PC).

In the SSID field, enter the name of the network you want to create

In password field enter a password of your choice, you will be asked for password upon connection via smartphone.

If you lose your password you can always reconfigure a new one following the same procedure.

To apply the changes click Apply and OK. Any changes made will take effect at the reintroduction of the micro SD card in the device OCTOBOX 4V VEDR, after powering the same.

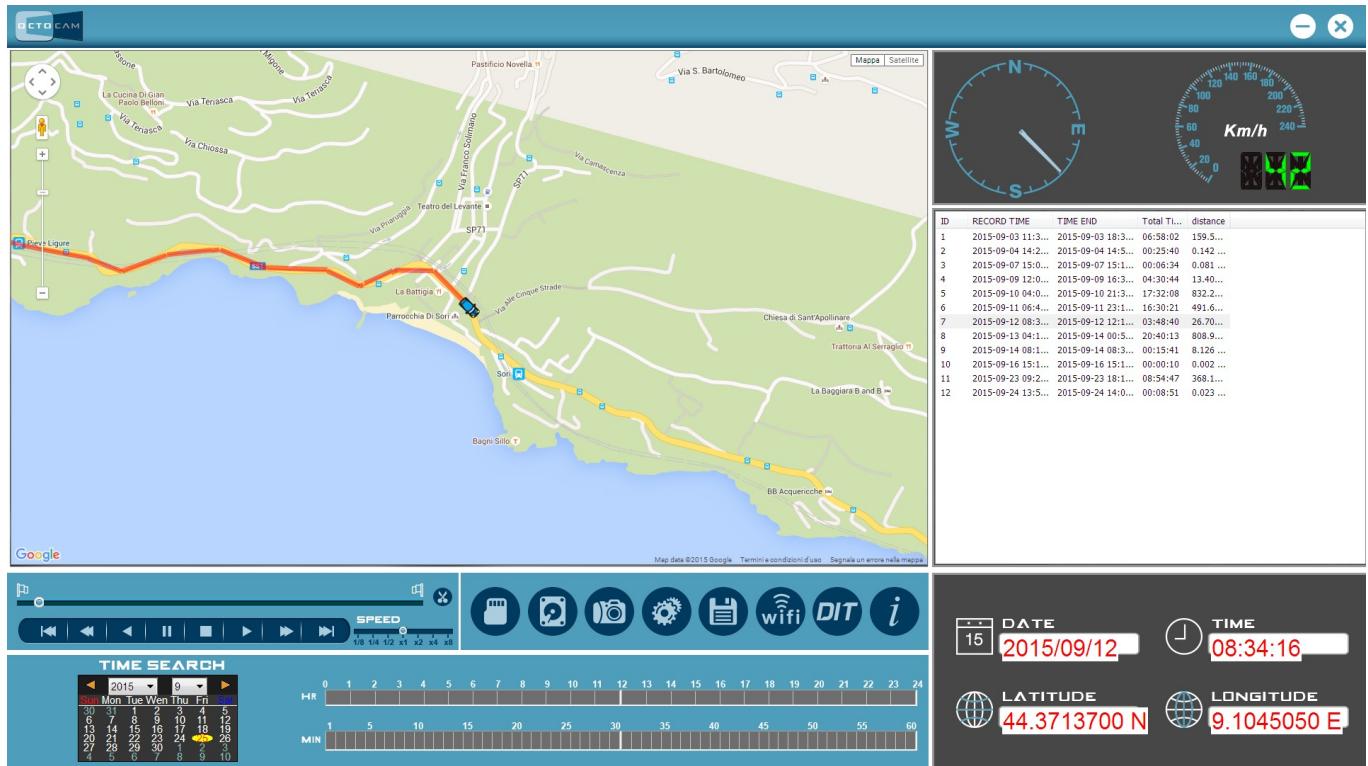


3.4.1.7 DIT – Digital Image Tachograph



DIT function allows viewing device positioning and speed data that are recorded regardless of the event once every 10 seconds. Data recorded includes speed direction geopositioning using Google Maps panel.

To access the data you must insert the microSD in the PC .



The white panel shows all recorded data sorted by date of acquisition.

Double clicking on the records of interest will play the data acquired by OCTOBOX 4V VEDR showing the route taken during the drive. For each sample it's possible to have informations about:

- speed
- direction
- date
- Now
- latitude
- longitude

All the playback buttons are active so you can pause, restart, skip to Previous / Next recording, increase / decrease the playback speed.

The map has the same features of the classic GoogleMap system so it's possible to zoom in/out and move along the maps.



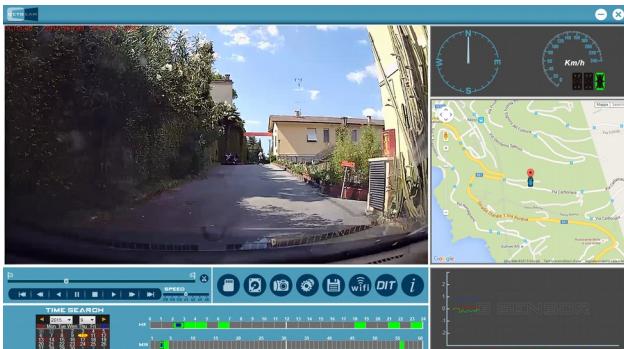
3.4.1.8 Info



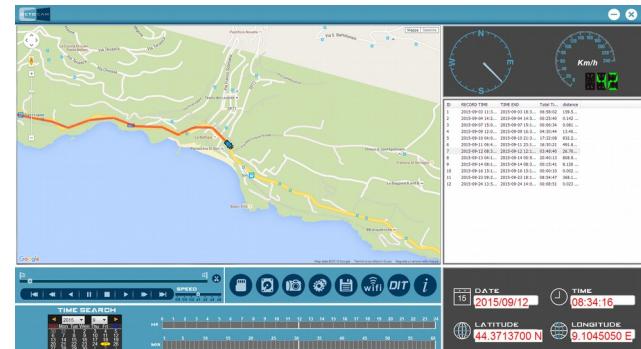
The info panel shows the version number, and the option to choose your preferred language, the default language is English.
For this function is not necessary to insert the microSD card into the PC.

3.4.2 Main Panel

Main Panel shows the recorded video if the VEDR mode is enabled, otherwise if the DIT mode is enable will show the tracking data of OCTOBOX 4V VEDR.



Modalità VEDR



Modalità DIT

3.4.3 Google Maps Window

Google maps panel shows the positioning information of OCTOBOX 4V VEDR if VEDR mode is enabled. If DIT mode is enabled will show the list of DIT data recorded.

3.4.4 G-sensor graph window

G-sensor Graph window in VEDR mode will show the G-sensor data acquired during an event. In DIT mode instead will show date, time and positioning data recorded on DIT file.



3.4.5 Compass and speed panel

This panel shows a compass and a tachometer, both in VEDR and DIT mode will show the speed and the direction of OCTOBOX 4V VEDR

3.4.6 Progress bar

The progress bar shows the progress of event or data DIT depending on the mode chosen. The playback buttons let you manage the progress of the same as any other player (play, stop, pause, rewind, forward).

3.4.7 Time Search

The panel time search allows to search the events by date / time. By choosing a specific date it's possible to find the period where events are recorded.

3.5 Event Recognition

Below it is a stylized example of a curve relative to the performance of impact in which you can identify the assertion of an event.

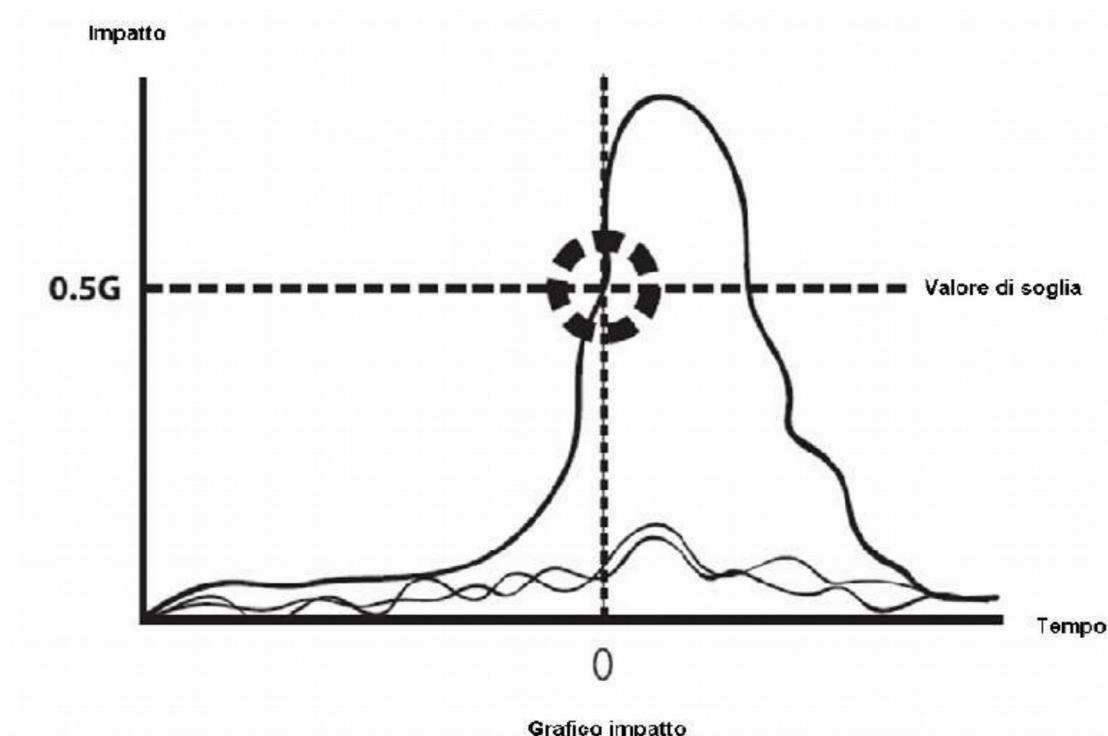
The Y-axis shows the scale relative to the variable 'G', in particular the value 0.5G is indicated as the



threshold limit set for the recognition event.

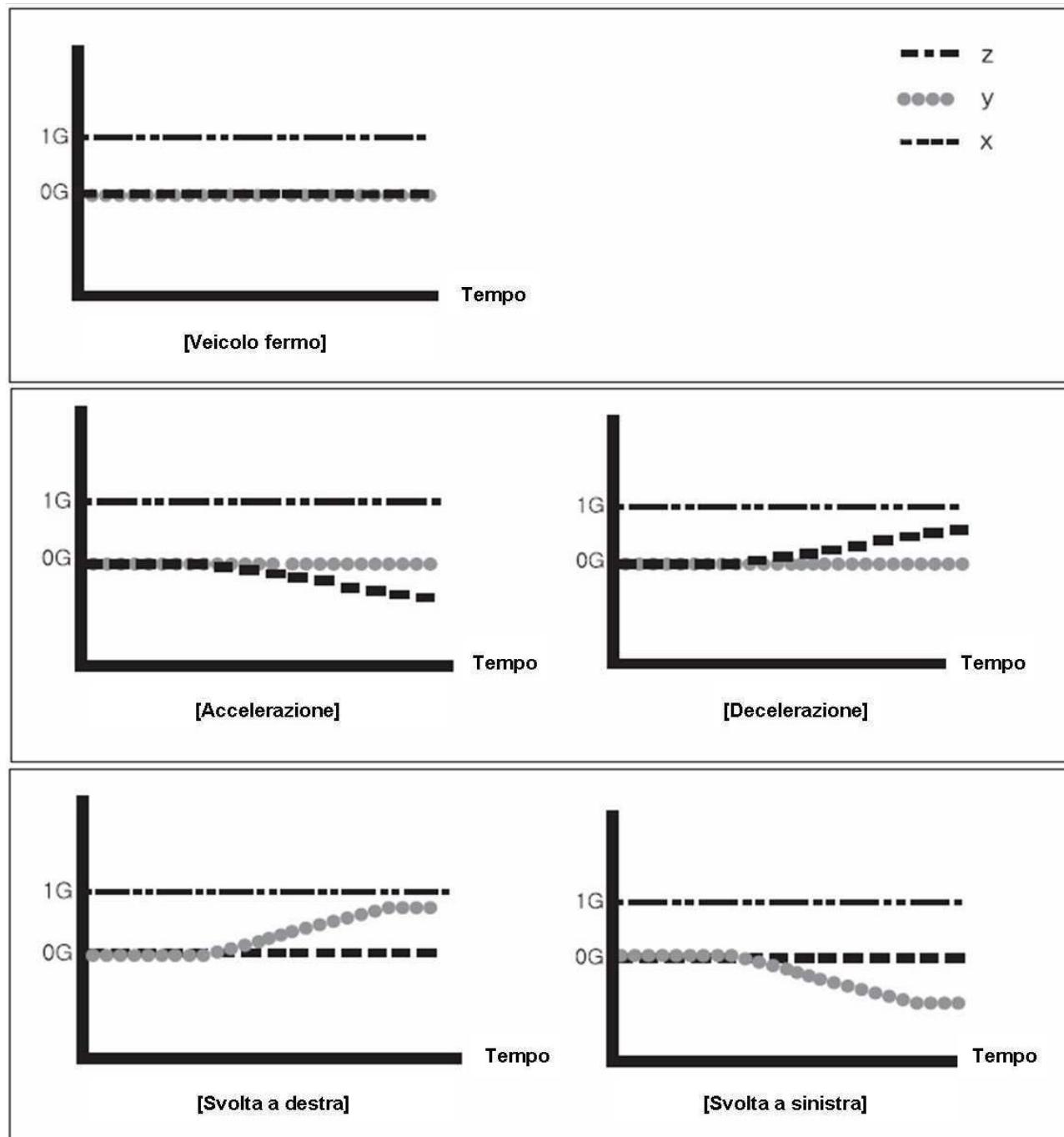
The X axis represents the time sequence, in particular point $x = 0$ is in correspondence of the acquired data (y) that determines the assertion of the event condition.

The curve shows that as a value of 'G' that exceeds the threshold value determines the assertion of the event condition and then the start of the registration process of the acquired data.



3.5.1 Data analysis

Following are some examples related to the shape of stylized curves drawn on the charts by the software ECO Vedr Player.



4 Device installation

4.1 Before to start

A part of the installation process of OCTOBOX 4V VEDR requires verification of the view angle.



It is important to use a work area in which the vehicle is level and stable and, in this condition persists for the whole installation phase.

Before installation, check the package contents.

Make sure that the supplied parts are all present and in good condition. Make sure that the positioning point of OCTOBOX 4V VEDR does not cause interference with the visual driving or with the movement of the rearview mirror.

Use the hardware components provided for the installation and the connection in order to prevent problems with the safety of the vehicle. Before positioning OCTOBOX 4V VEDR on the surface of the windshield or any surface clean the part. It recommends the use of specific products to remove any traces of oily or greasy substances. Do not use ethyl alcohol.

4.2 *Installation OctoBox 4V*

OCTOBOX 4V VEDR is typically placed on the inside part of the front windshield view mirror.

When mounted on trucks, buses or other big vehicles, it is suggested to place the device at the center of the windshield on the underside of the same.

In order to avoid repeated installations, carefully check the positioning point of OCTOBOX 4V VEDR, in particular as it regards the non-interference with the driver's visibility and maneuverability of the rearview mirror. Mark the point of placement with a permanent marker.

Follow these steps to install:

- 0 Remove the backing from the double-sided tape mounting.
- 1 Place OCTOBOX 4V VEDR at the center of the windshield.
- 2 Check OCTOBOX 4V VEDR is centrally located and aligned horizontally with the windscreens, then attach OCTOBOX 4V VEDR to the windshield.
- 3 Correct the angle of installation so that the system is aligned along the vertical axis.
- 4 Connect the power cable and check that the indicator LEDs POWER GPS and Wi-Fi assume the look on (the indicator GPS status may remain flashing if the GPS signal is weak or absent).

Insert the micro SD card (sold separately) in the compartment of the body protected by safety screw. OCTOBOX 4V VEDR can not operate without micro SD card.

To remove the card from the compartment housing press lightly on the accessible side of the board to the center point of the camera body.

To insert the card you must accompany the same slot until it stops, and then gently press.

4.3 *OCTOBOX 4V VEDR cable positioning*

The power cable of OCTOBOX 4V VEDR is integral with the body of the system.



In order to get a tidy wiring, follow the following instructions: The power cable must be fixed by the anchor position of OCTOBOX 4V VEDR to where it is available on the cigarette lighter of the car or in the fuse box.

Ensuring a reasonable excess cable available in the connection to the system OCTOBOX 4V VEDR.

Place the power cable by choosing a path to the sides of the windscreen.

If possible, plug the cable into the space already available or obtainable by moving the pillar cover or dashboard.

If the cover of the instrument panel can be removed easily lay the cable in a protected area.

If necessary, use the mounting materials supplied to realize anchor points auxiliaries.

The power cable must be laid in such a way as not to suffer mechanical stress that could compromise their integrity.

Excess cord must be collected and anchored in such a way as not to constitute a hindrance in the passenger compartment.

Ensuring a reasonable excess cable available in the connection area of the cigarette lighter or fuse box Then plug the power cord into the cigarette lighter of the vehicle or to a feed point (eg. Power sub-key) in the fuse box.

We recommend installing a fuse 2A up cable.

It is also recommended not to ever connect to the CAN bus of the vehicle to gain power: always use a light or fuse box.

4.3.1 Electric connection diagram

OCTOBOX 4V VEDR is supplied with two poles power cables

The cable is composed of the following wires:



Color	Function
-------	----------

red	12Vcc
Black.	Ground

4.4 *installation check*

When device is powered LED power, GPS and Wi-Fi are turned on and then off in sequence.

After the boot process the LED indicator lights are lit in accordance with the state of the system and according to the configurations described in the previous paragraphs.

Finally, check:

No interference between the camera body and the rear view mirror. Horizontal positioning aligned with the roadway. Vertical position perpendicular to the road surface.

Press the REC button to record an image manually. The system shows the current recording as described in the preceding paragraphs.

5 Informations

OctoCam srl It is importer for the world of product OCTOBOX 4V VEDR.



OctoCam srl recalled that the product may constitute a mere aid in case of accidents for any assessment of their dynamics. The admission and assessment of their recording as evidence, however, shall be referred to the exclusive determination of the competent court.

OctoCam Srl, also, is not responsible for improper use of the product prohibited by current regulations, incorrect or otherwise does not comply with the instructions contained in the package.

To the extent permitted by applicable law, "OctoCam", Ltd. It assumes no liability for loss, damage or alteration of data or loss generally caused by using the product or its functionality.

NB: When taking and using images or video clips, obey all laws as well as privacy and rights of others.

The information contained herein may be changed without notice.

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For more information, visit: www.octocam.it

WiFi dongle FCC ID: 2AE36-ECOVEDR

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.

Notice :

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE:

To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The 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 instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio 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.

The user should not modify or change this equipment without written approval from OCTOCAM S.R.L. Modification could void authority to use this equipment.