

SENCOR®

Let's live!



OUTDOOR CAMERA
OUTDOOROVÁ KAMERA
OUTDOOROVÁ KAMERA
SZABADIDŐ-KAMERA
KAMERA OUTDOOROWA

3CAM 2002

USER'S MANUAL
NÁVOD K OBSLUZE
NÁVOD NA OBSLUHU
HASZNÁLATI ÚTMUTATÓ
INSTRUKCJA OBSLUGI

EN

CZ

SK

HU

PL



1. Attention

The product has been manufactured with a high precision and designed with respect to its multi-purpose outdoor use for individual entertainment.

Observe other persons' privacy protection laws in force while shooting particularly in your absence.

Avoid falls and impacts, particularly on sharp objects with edges, stones etc. Do not expose the unit to strong electromagnetic field, e.g. near magnets and electric motors. Avoid strong radio signals. Strong electromagnetic fields may harm data on the memory device (card) and/or cause picture and sound malfunctions or even a product failure.

Never expose the products to high temperatures and direct sunlight.

Use only branded and fast microSD cards. With non-branded or slow memory cards, correct function and recording cannot be guaranteed.

Avoid short-circuiting the battery contacts, as a short-circuit may cause high battery temperature or even incineration of surrounding objects.

If overheating, smoke or unpleasant smell occur during charging or handling, disconnect the unit immediately to avoid fire hazard.

This appliance is not a children's toy. Keep out of reach of children particularly while charging.

Connection to electric network may lead to injury, sudden suffocation or electric shock of children in case of mishandling.

Store the device in cold, dry and dustless locations.

Note about storage

Keep in mind that this product is designed also for outdoor use that can cause contamination. Before storage, whether for a short or long time, such as in an out-of-season period, clean the camera, case and accessories carefully. Clean the dusty locations by blowing. During further use, dust may lead to roughening of the contact surfaces, reducing or even fully preventing the resistance against dust and water. Before restoring operation, please check the cleanliness again.

After season and at least once in a year, please check the door, case and button sealing and have them replaced by service if needed.

For cleaning, do not use abrasives, chemicals and tools. Instead, use only dry and soft cloth or warm water to be applied only on non-electric accessories.

Due to the changing outdoor weather conditions, the battery is exposed to a high stress.

Therefore, check battery for the case shape and colour change as well as the condition and oxidation of the contact areas during use from time to time. The battery depletion results in lower capacity and shorter operating time.

If the battery is to be stored for a prolonged period of time, charge it fully, then remove it from the unit. This will prolong the battery lifetime, allowing you to make a better use of its capacity.

Note about outdoor use

Before using outdoors, please prepare and assemble the camera and accessories comfortably in a dry environment. Please check if the camera is able to record the scenes of your interest and is not obstructed by your outfit and clothing parts. This will eliminate the need to adjust the assembly and open the camera's sealed case in dust/sand, rain, in gloves etc.

Please note that any outdoor camera use requires that the camera should be correctly enclosed in the outdoor water-resistant case. Keep the battery contacts from contamination and short-circuiting when handling. If you remove the battery, store it in a small plastic pouch.

Do not use the camera in water streams or hot thermal springs.

If the camera is used in salt water, wash the closed case in fresh water and don't let the salt crystallize on the surface. Open the case in clean and dry environment, remove the camera and check sealing and buttons. If you find any salt residues, wash the whole case in fresh water again and let it dry thoroughly at room temperature without the effects of hot air or heating. This will keep the case water-resistant also for future use. As the camera does not float, keep it secured with a suitable tether strap to prevent it from getting lost in water. Pay special attention to the lens transparent cover and protect it from dust, dirt and scratching. Sharp shots in focus will be your reward.

Notice for using at low temperatures

At low temperatures, the battery power drops temporarily and will restore when the room temperature is reached again. We recommend to keep the unit warm, e.g. inside your clothing. Do not charge the battery at low temperatures. Display brightness and colour may change at temperatures near the freezing point. At low temperatures, moisture may condensate or even freeze on the cover surface and impair or even prevent control and affect the recorded video quality particularly in front of the lens or in the vicinity of buttons. Please try to prevent condensation and moisture freezing.

2. Introduction

This unit is a digital device to record high-resolution videos. It offers a variety of superior features such as digital video recording, photography, audio recording, video playback and a removable battery, making it an ideal unit for recording in car, photography, outdoor sports, household security, underwater exploration etc. Thus, you can shoot video whenever and wherever you like.



Car camera



Outdoor sports



Water sports



Diving



Household security

According to your planned use, assemble the mount so that the entire scene will appear in the lens field of vision. Remember that the camera's wide-angle lens covers a wider scene than human eyes. In practice, this is shown by curving the straight lines of objects, the so-called fisheye. Take a test recording and check if the camera covers the desired scene and there is no obstacle in the camera range. When assembling the mounts, try to keep them as short as possible. This will reduce the camera protruding, making it less prone to damage by hitting an obstacle randomly and less exposed to vibrations transferred from the pad. This will result in a steadier video recording. If you choose a bonded joint installation, please use an adhesive tape from the package and carefully clean and degrease the areas to be bonded. Find a continuous, smooth and sufficiently large area on the base for the mount to be fixed properly. Before sticking, check the adhesive tapes for cleanliness, integrity and glue age (older glues may not be adhesive enough). Buy a new, branded and quality adhesive tape if needed.

2.1. Device features

- A waterproof case allows you to capture fascinating water scenes with watertightness up to 30 meters
- Display to show and play recorded videos
- An easy-to-replace removable battery extends your camera lifetime
- Video recording during charging
- Recording video with battery power

- Wide-angle lens with HD resolution
- Web camera
- Supports up to 32GB memory cards
- Several video recording formats: 1080p / 720p / WVGA / VGA
- AVI format recording
- Several still image modes: single shooting, snapshots
- Miniature design

3. Putting into operation

3.1. Inserting and removing a microSD card

- A. Insert the microSD card in the card slot on the camera with the contacts towards the camera, facing the lens all the way down until the card lock clicks.
- B. To remove the card, slightly press the card until the lock clicks and the card is slightly ejected from the slot. Then you can remove the partially ejected card with your fingers.

Note:

Use your own branded microSD card and format it in PC before use. With non-branded memory cards, correct function cannot be guaranteed. You can also format the card in the camera. Keep holding the card slightly while inserting and removing it to prevent it from popping up.

3.2. Battery installation and removal

Note:

The battery is equipped with a thin ribbon to pull it out from the camera tight battery compartment. Do not remove the ribbon.

- A. Press slightly on the battery compartment spring latch to open the cover.
- B. Insert the battery all the way down in the camera's compartment (with the contacts facing their counterparts). Make sure that the battery pull ribbon is still accessible.
- C. Insert the battery compartment cover so that the firm lug fits in the notch on the opening edge (towards the camera side) and close the cover slightly until the elastic cover clicks in place.
- D. Battery removal: open the cover and pull out the ribbon.

Tip: A new battery will reach its full power after about 3 charging and discharging cycles. We recommend to charge the battery to the full (until the red charging indicator goes out) and discharge until the camera is powered off. This will extend the battery life.

Note:

With external power supply, the camera can be operated also without a battery, e.g. in a car. If the battery is inserted with low energy status, unexpected conditions may occur including spontaneous power off. Give the camera battery at least a little charge initially.

3.3. Charging

To charge the battery inside the camera, connect the camera to a PC or a power adapter. The adapter' output voltage must be 5V and you can use a power line as well as a car adapter. Before connecting the power adapter, please check if the nameplate ratings match the power line voltage or the car board voltage.

You can charge the camera in both power on and off state. You can also record while charging (e.g. in your car). A red LED indicator (lower left) lights during charging. Adapter, battery and camera heat slightly during charging. This is a normal energy conversion feature.

3.4. Turning the camera on and off

- A. To power the camera on/off, hold down the switch for 3 to 5 seconds. The camera power on state is indicated by a blue LED (left) or lit display (depending on the Power Save setting).
- B. To turn the camera on or off (according to the current settings, see below), you can also connect or disconnect the power supply. In a car, for example, this is achieved by turning the ignition key to appropriate position.
- C. Depending on the setting, the camera may power off when the set timeout has passed.

3.5. Switching the modes

Press the power on button briefly to switch the following modes: **Video record / Still image / Playback.**

The selected mode is indicated by the following symbols on the active display top left corner: Camera / Still camera / Playback (film frame)

3.6. How to record videos and take pictures

If a memory card is correctly formatted and inserted in the camera, you can record (in the Record mode) or take pictures (in the Still image mode). To do so, press **OK** on the camera top while the display is lit. If the display is off (Power Save mode), first press will turn the display on and only the second press will execute the desired function. To stop a running recording, press **OK** again while the display is lit.

While the recording is in progress, a blue operation indicator is flashing slowly and a yellow dot is shown on the lit display. Taking a picture is accompanied by a beep sound from the camera speaker (unless the sounds are disabled in Settings).

3.7. Video and still image playback

To start the file playback, switch to the playback mode. Video recordings are marked by a film frame symbol. To switch between individual files, press **Up** and **Down**. You can view the video files in their entirety - to play/pause, press **OK**, to adjust the speed during playback, press **Up** and **Down**.

4. PC connection

Connect the camera to your PC's USB port (Windows) with the cable attached. In addition to charging, you can use data connection as well.

As soon as the camera detects a PC connection, a message appears with the option to select Mass Storage or PC camera. Press **Up** and **Down** to select a desired mode, then press **OK** to confirm the connection.

Mass Storage mode - connects the camera memory card as the PC external storage. Files can be copied from this storage to PC. They are stored in the card's DCIM folder: AVI files are the camera recording while JPG are photos.

Note:

No changes in files or on the memory card can be made while the unit is connected to PC. Some files or even the entire memory card could be still inaccessible to the camera or even further camera recording on the card might be prevented. In such case, the card must be formatted with losing all data.

PC Camera mode - this can be used in video communication applications such as Skype. Depending on your application, the camera can be named General, UVC etc. When connected to a given PC port, drivers for the appropriate connection will be searched first. In some cases, internet connection is required to download the operating system up-to-date component. Wait until the installation is complete. If the installation fails, please try to use another port or replace the cable.

Card reading - you can also remove the MicroSD from the camera in the power off state and insert in the relevant PC card reader. You can then read the recorded files directly from the card and save them in PC for further processing or archiving.

5. Camera settings

The setting options are adapted to many modes that the camera can be operated in. Before using in full operation, take some time to make correct settings and sufficient testing. This will prevent possible disappointment that an important event recording fails to meet your

expectations. In particular, consider whether or not the camera will move while shooting videos, how long the recording will take, how the camera will be powered while recording etc. Also, consider possible conflicts (power off timeout, battery power connection) to prevent the camera from missing a desired scene due to the occurrence of just one cue and not the other.

To enter the camera settings, press **MODE** repeatedly.

To move between items, press **Up** and **Down**, to enter a given item, press **OK**. After entering an item, select a value, then press **OK** again to save the value and exit the item. To exit the Setting mode, select another mode by pressing **ON (Mode)**.

1. Resolution - indicated by a number on the display

Select from 1920×1080, 1440×1080, 1280×720, 848×480 a 640×480. Please note that you need a memory card fast enough to store the incoming data flow. Data amount and file sizes are bigger for higher resolutions compared to lower resolutions.

2. Exposure - EV icon, fraction on the display

Both the camera and still camera exposure can be preset in several steps from -2 (for bright environments) to +2 (for dark environments).

3. Motion Detection

The camera evaluates motion in the field of vision and starts recording if a more significant movement is detected. A recording in duration of about 10 minutes will be made.

4. Cyclic Record - number on the display

Select an integrated recording (OFF) or splitting into separate files, 1/3/5 mins each. Selecting integrated recording cannot exceed the limits set by the card's file system or the file format. The recordings will be still split, however, with the files being significantly larger.

5. Videolapse

Enabling and setting the recording of slow actions. For normal recording, keep the function disabled (Unused / Close) or set the time (1s, 2s, 5s, 10s, 30s, 60s) between taking individual images to be played back later on as a video without sound.

6. WDR

Capturing and recording still images and videos with a higher dynamics.

7. Record Audio – microphone icon on the display is crossed or absent.

Turn on/off audio and video recording

8. Date stamp

Enable or disable date and time placement directly in the recording.

9. Image Size - size in Mpix on the display

Select the still image size from the following options: 16M 4608 × 3456, 12M 4032 × 3024, 10M 3648 × 2736, 8M 3264 × 2448, 5M 2592 × 1944, 3M 2048 × 1536, 2M 1920 × 1080, 1.3M 1280 × 960. A higher size will create larger files filling up the memory earlier.

10. Quality - still image quality

Select the degree of fine detail capturing from Fine (largest file size), Normal up to Economy (smallest file size).

11. Capture Mode

Taking several picture at a single release press.

12. Sharpness

The sharpness of the captured images can be set to Strong, Normal (recommended) or Soft.

13. ISO

Select from Auto (recommend)/100/200. A higher number corresponds to a higher material ISO speed but increases the picture noise.

14. White balance – An icon on the display in the still camera mode.

You can adjust the picture colour tint according to the prevailing illumination type by selecting one of the following options: Auto (recommended), Daylight, Cloudy, Tungsten and Fluorescent.

15. Frequency

Recording under artificial illumination may be affected by light flickering in the line frequency rhythm which is normally invisible to eyes but may be still captured by the camera. Select 50Hz/60Hz depending on your conditions.

16. OSD Mode

When turned off, less OSD information is shown to maximize the scene on the display.

17. Screen Saver

Set the time after which the display will turn off from the following options: OFF (the display lights throughout the operation), 1min, 3min, 5min. When the set time passes, the camera continues with the previous operation. To turn the display on again, press OK briefly.

18. Power off timeout (Auto Power Off)

If this function is enabled and the camera is inactive for about 1, 3 or 5 minutes, it will power off to save energy.

19. Language

Select one from several user interface languages.

20. BEEP Sound

Button presses and power on/off may be accompanied by a beep sound (On) or be silent (Off).

21. Date & time

Press Up and Down arrows to set a desired value, press OK briefly to move between items and press Mode to exit the settings.

22. Driving Mode - when enabled, the camera starts recording immediately after powering on.

This is useful in a car with on-board voltage power - when the ignition key is set in the Accessories (ACC) position, the camera will power on and starts recording automatically. The video camera will power off automatically a moment after the car power is turned off (interval required for the file saving). As long as the Driving mode is disabled, the camera will remain in the standby mode and you will have to start the recording manually.

23. Delete

To delete unnecessary files, select either Delete Current? to delete current file or Delete All? to delete all files. The deletion must be then confirmed by pressing OK or cancelled by pressing Cancel.

24. Format

This function allows you to format the inserted card to be used in the camera. A dialogue to confirm (OK) or cancel (Cancel) will appear.

ATTENTION! Formatting will irreversibly delete all the memory card contents!

25. Default Setting

This function will set all items to their preset factory values. This is useful if you want to restore the default settings of more setting items. Press Enter to confirm or Cancel to cancel the selection.

26. Version

This function will list the information about the system currently being used.

6. Troubleshooting

Please read before reaching out to your dealer or service.

Tip: It's mainly the memory card or the battery that's sensitive to harsh conditions (temperature changes, cold, vibrations). Please check their conditions regularly and before a higher load, such as before a holiday. Replace them for faultless ones if even the slightest problems occur. Please note that even minor problems found at room temperatures will grow outdoors.

Photos or recordings cannot be captured

Check if the inserted card is functional, contains enough free space and is not write-protected. Format the card if needed.

The recording stops spontaneously.

Check the inserted card for integrity, format it in the unit or use another, faster card if possible.

“File error” message appears during video or still image playback or the file is unreadable or missing.

The file is corrupted due to a media error. Try to format the card or replace it for a new one.

Blurred image

Please check if the lens is not dirty and clean it with fine wipes suitable also for glasses, if necessary.

The image is dark even though the entire scene is bright (sky, water).

The unit tries to balance the high contrast scenes automatically. Change the measurement and EV sensitivity settings.

The photo colours are not faithful even under daylight.

Check the white balance in Settings.

Stripe patterns in picture

The scene contains light with 50Hz or 60Hz frequency (according to your power grid). To compensate the stripe patterns, change the frequency in Settings.

7. Technical specifications

| | |
|---------------------------------|--|
| LCD display | 2" |
| Lens | Wide lens |
| Video formats/codec | AVI/MJPEG |
| Recorded video resolution | 1920×1080 - 30fps, 1440×1080 - 30fps, 1280×720 - 30fps, 800×480 - 30fps, 640×480 - 30fps |
| Still image format | JPEG |
| Still image resolution | 16M/12M/10M/8M/5M/3M/2M/1.3M |
| Storage | microSD |
| USB interface | USB 2.0 |
| Power requirements | 5 V / 1 A |
| Battery capacity | 900mAh |
| Recording duration | 1080P / app. 70 minutes |
| Charging time | approximately 3 hours |
| Camera dimensions | 59×41×31mm |
| Camera weight including battery | 65 g |

Note:

The technical specifications may be changed due to updates. Consider the product itself to be a standard.

The original version is in the Czech language.

Manufacturer's address: FAST ČR, a.s., U Sanitasu 1621, Říčany CZ-251 01

INSTRUCTIONS AND INFORMATION ON DISPOSING OF USED PACKAGING MATERIALS

Dispose of used packaging material at a site designated for waste in your municipality.



DISPOSING OF USED ELECTRICAL AND ELECTRONIC EQUIPMENT

This symbol on products or original documents means that used electric or electronic products must not be added to ordinary municipal waste. For proper disposal and recycling, take these products to designated collection points. Or in some European Union states or other European countries the products can be returned to the local retailer when buying an equivalent new product. Disposing of this product correctly helps save valuable natural resources and prevents damage to the environment by improper waste disposal. Ask your local authorities or collection facility for more details. In accordance with national regulations penalties may be imposed for the incorrect disposal of this type of waste.

For business entities in European Union states

If you want to dispose of electric or electronic devices, ask your retailer or supplier for the necessary information.

Disposal in other countries outside the European Union

This symbol is valid in the European Union. If you wish to dispose of this product, request the necessary information about the correct disposal method from the local council or from your retailer.



This product meets all the basic requirements of the applicable EU directives.

The text, design and technical specifications may be changed without prior notice and we reserve the right to make these changes.

Manufacturer's address: FAST ČR, a.s., U Sanitasu 1621, Říčany, Czech Republic. The original version is in the Czech language.

SENCOR®

EN Warranty conditions

Warranty card is not a part of the device packaging.

This product is warranted for the period of 24 months from the date of purchase to the end-user. Warranty is limited to the following conditions. Warranty is referred only to the customer goods using for common domestic use. The claim for service can be applied either at dealer's shop where the product was bought, or at below mentioned authorized service shops. The end-user is obligated to set up a claim immediately when the defects appeared but only till the end of warranty period. The end user is obligated to cooperate to certify the claiming defects. Only completed and clean (according to hygienic standards) product will be accepted. In case of eligible warranty claim the warranty period will be prolonged by the period from the date of claim application till the date of taking over the product by end-user, or the date the end-user is obligated to take it over. To obtain the service under this warranty, end-user is obligated to certify his claim with duly completed following documents: receipt, certificate of warranty, certificate of installation.

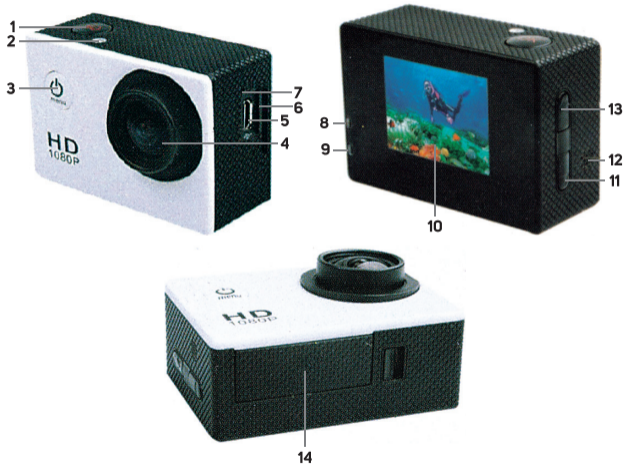
This warranty is void especially if apply as follows:

- Defects which were put on sale.
- Wear-out or damage caused by common use.
- The product was damaged by unprofessional or wrong installation, used in contrary to the applicable instruction manual, used in contrary to legal enactment and common process of use or used for another purpose which has been designed for.
- The product was damaged by uncared-for or insufficient maintenance.
- The product was damaged by dirt, accident of force majeure (natural disaster, fire, and flood).
- Defects on functionality caused by low duality of signal, electromagnetic field interference etc.
- The product was mechanically damaged (e.g. broken button, fall).
- Damage caused by use of unsuitable media, fillings, expendable supplies (batteries) or by unsuitable working conditions (e.g. high temperatures, high humidity, quakes).
- Repair, modification or other failure action to the product by unauthorized person.
- End-user did not prove enough his right to claim (time and place of purchase).
- Data on presented documents differs from data on products.
- Cases when the claiming product cannot be identified according to the presented documents (e.g. the serial number or the warranty seal has been damaged).

Authorized service centers

Visit www.sencor.com for detailed information about authorized service centers.

Product image / Obrázek produktu / Obrazok produktu / A kamera részei / Zdjęcie produktu



EN

1. OK
2. Indicator
3. ON/OFF / Menu
4. Lens
5. USB
6. microSD
7. Microphone
8. Charging indicator
9. Operation indicator
10. Display
11. Down / (Zoom Out)
12. Speaker
13. Up / (Zoom In)
14. Battery cover

CZ

1. OK
2. Indikátor
3. ZAP/VYP / Menu
4. Objektiv
5. USB
6. microSD
7. Mikrofon
8. Indikátor nabíjení
9. Indikátor provozu
10. Displej

11. Dolů / (Zoom Out)
12. Reproduktor
13. Nahoru / (Zoom In)
14. Kryt baterie

SK

1. OK
2. Indikátor
3. ZAP/VYP/Menu
4. Objektív
5. USB
6. microSD
7. Mikrofón
8. Indikátor nabíjania
9. Indikátor prevádzky
10. Displej
11. Dole/(Zoom Out)
12. Reproduktor
13. Hore/(Zoom In)
14. Kryt batérie

HU

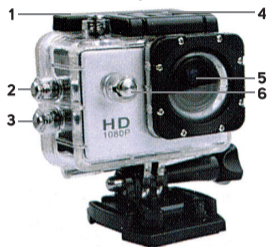
1. OK
2. Kijelző
3. Be/Ki/Menu
4. Objektív
5. USB
6. microSD

7. Mikrofon
8. Töltéskijelző
9. Működés kijelző LED
10. Kijelző
11. Le / (Zoom Out)
12. Hangszóró
13. Fel / (Zoom In)
14. Elemtartó fedél

PL

1. OK
2. Dioda
3. WŁ./WYŁ. / Menu
4. Obiektyw
5. USB
6. microSD
7. Mikrofon
8. Wskaźnik ładowania
9. Wskaźnik pracy
10. Ekran
11. W dół / (Zoom Out)
12. Głośnik
13. W górę / (Zoom In)
14. Pokrywa baterii

Picture with waterproof case / Obrázek voděodolného pouzdra / Obrázok vodoodolného pouzdra / Vízhatlan tok / Rysunek obudowy wodoszczelnej



EN

1. OK
2. Up
3. Down
4. Case opening lock
5. Lens
6. Switch/mode

CZ

1. OK
2. Nahoru
3. Dolů

4. Zámek otevření pouzdra
5. Objektiv
6. Přepínač/režim

SK

1. OK
2. Hore
3. Dolu
4. Zámka otvorenia pouzdra
5. Objektív
6. Prepínač/režim

HU

1. OK
2. Fel
3. Le
4. Tokzár
5. Objektív
6. Főkapcsoló / üzemmód kapcsoló

PL

1. OK
2. W górę
3. W dół
4. Blokada otwarcia obudowy
5. Obiektyw
6. Przełącznik/tryb

Pictures with Accessories / Obrázek příslušenství / Obrázky príslušenstva / Tartozékok / Zdjęcia akcesoriów

| | | | | |
|---|--|--|---|---|
|  <p>Water-resistant case Voděodolné pouzdro Vodoodolné puzdro Vizhatlan tok Obudowa wodoszczelna</p> |  <p>Bike holder Držák na kolo Držiak na bicykel Tartó kerékpárhoz Uchwyt rowerowy</p> |  <p>Base 1 Základna 1 Základna 1 Talp 1 Podstawa 1</p> |  <p>Car bed Lůžko do auta Lůžko do auta Kameratartó autóba Loze montažowe do samochodu</p> |  <p>Solid holder Pevný držák Pevný držiak Fix tartó Uchwyt stały</p> |
|  <p>Arm 2 Rameno 2 Rameno 2 Kar 2 Ramię 2</p> |  <p>Adapter Adaptér Adaptér Adapter Zasilacz</p> |  <p>Helmet holder Držák na helmu Držiak na helmu Tartó sisakra Uchwyt na kask</p> |  <p>Belt Řemínek Remienok Heveder Rzemień</p> |  <p>3M tape Lepicí páska 3M Lepiaca páska 3M 3M ragasztószalag Taśma klejąca 3M</p> |



Data cable
Datový kabel
Dátový kábel
Acél dróthurok
Kabel do
transmisji danych



Charger
Nabíječka
Nabíjačka
Akkumulátor töltő
Ładowarka



User's manual
Návod k obsluze
Návod na obsluhu
Használati
útmutató
Instrukcja obsługi



SENCOR®

Let's live!



www.sencor.cz

Designed in Europe by Sencor®, Made in China

