velleman®

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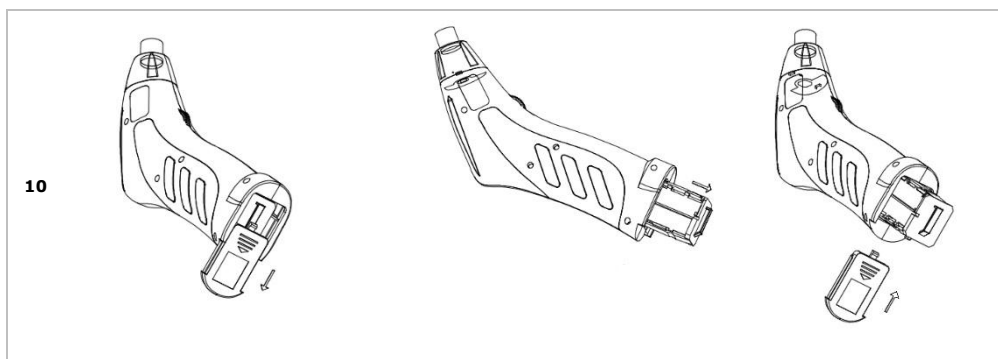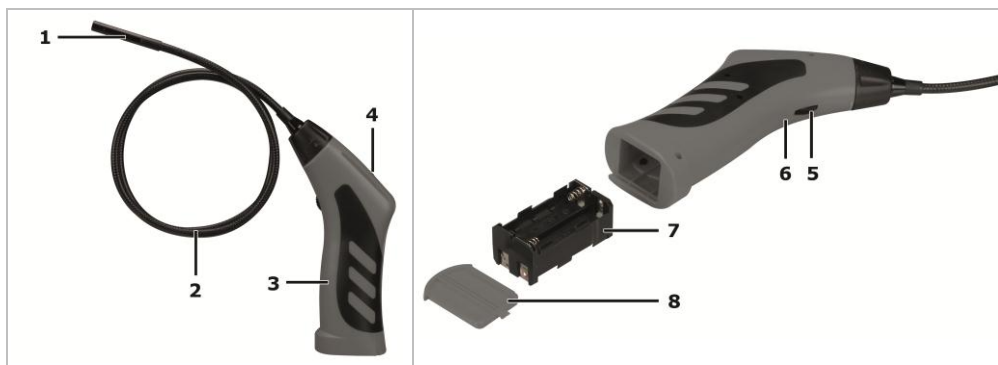**WI-FI INSPECTION CAMERA FOR SMART PHONES AND TABLETS**
WIFI-INSPECTIECAMERA VOOR SMARTPHONES EN TABLETS
CAMÉRA D'INSPECTION WIFI POUR SMARTPHONES ET TABLETTES
CÁMARA DE INSPECCIÓN WIFI PARA SMARTPHONE Y TABLET
WIFI INSPEKTIONSKAMERA FÜR SMARTPHONE UND TABLET
CÂMARA WI-FI PARA SMARTPHONES E TABLETS
KAMERA INSPEKCYJNA WIFI DO SMARTFONÓW I TABLETÓW

CE

USER MANUAL

1.   Introduction

To all residents of the European Union
Important environmental information about this product

This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a specialized company for recycling. This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules.

If in doubt, contact your local waste disposal authorities.

Thank you for choosing Velleman! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, don't install or use it and contact your dealer.

2.   Safety Instructions

⚠️	This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children shall be supervised to ensure that they do not play with the appliance.
⚠️ ⚠️	**Do not** use in areas where explosive gasses reside. Note that the camera head is made of metal and may cause short-circuits. **Never** insert the camera in energised/operational machines or equipment.
⚠️	This is **not** a medical device hence it should **never** be used on humans or animals. Misuse may lead to severe injuries or even death.
⚠️	There are no user-serviceable parts inside the device. Refer to an authorized dealer for service and/or spare parts.

3.   General Guidelines

Refer to the **Velleman® Service and Quality Warranty** on the last pages of this manual.

	Keep this device away from dust and extreme temperatures.
	Protect this device from shocks and abuse. Avoid brute force when operating the device.

- Familiarise yourself with the functions of the device before actually using it.
- Always allow the device to reach room temperature before switching it on.
- Do not use the device if condensation forms inside the lens. Let the water evaporate before using again.
- The camera and gooseneck are waterproof and can be submerged in pH-neutral liquid (not acid or alkaline). **Never** submerge the handle as this will cause irreversible damage. Keep the handle away from rain, moisture, splashing and dripping liquids.
- Avoid strong mechanical strains or vibrations. The bending radius of the gooseneck must be at least 4.5 cm.
- Clean the device after each use.
- **Do not** use when visible damage to the device is noticed.
- All modifications of the device are forbidden for safety reasons. Damage caused by user modifications to the device is not covered by the warranty.
- Only use the device for its intended purpose. Using the device in an unauthorised way will void the warranty.
- Damage caused by disregard of certain guidelines in this manual is not covered by the warranty and the dealer will not accept responsibility for any ensuing defects or problems.
- Warranty is limited to the device itself; installation and use of the software (apps) is the sole risk of the user.
- Keep this manual for future reference.

4.   Features

This Wi-Fi inspection camera works with Android or iOS smart phones or tablets. The free application is available in the Google Play or App store.

- ideal for checking hard-to-reach areas, e.g. behind walls, suspended ceilings, etc.
- 4 built-in white LEDs
- adjustable LED intensity
- compatible with:
  - Android: smart phone and tablet (Android OS 2.3.5) (iSnakescope)
  - iOS: iPhone, iPod touch, and iPad (iOS 4.1 or later) (iSnakescope)

- video and picture recording
- camera diameter: 8 mm
- records video and images on the smart phone or tablet
- comes with: 3 exchangeable top pieces
  - magnetic top: to pick up small metal pieces
  - hook: to retract wires or other small objects
  - mirror: to look behind corners or in shallow holes.

5.   Overview

Refer to the illustrations on page 2 of this manual.

1	camera head with LEDs	6	reset button
2	gooseneck (± 80 cm)	7	battery holder
3	handle	8	battery cover
4	status LED	9	accessory tools: hook, magnet, mirror
5	thumbwheel: on/off and brightness	10	battery replacement

Status LED

After switching on, the camera goes through a start-up process, among other things to prepare the Wi-Fi hotspot for communication with the mobile device. The LED on the camera indicates the status of the camera. The table below provides an overview:

LED light	Timing	Status
Green, continuous	0–5 seconds after switching on	Software initializing.
Green, flashing 5 times/second	5–8 seconds after switching on	Software setting.
Green, continuous	8–40 seconds after switching on	Hardware initializing.
Green, flashing 1 time/second	After 40 seconds	Software and hardware ready; camera ready to connect to a mobile device.
Green, flashing 2 times/second	–	Camera is connected to mobile device.
Off (10 seconds), then continuous	–	Resetting. See **Troubleshooting** for more information.
Green and red	–	Low battery. See **Installing/Replacing Batteries** for more information.

6.   Preparation

Refer to the illustrations on page 2 of this manual.

6.1   Installing/Replacing Batteries

⚠️ **Warning!** Do not puncture batteries or throw them in fire as they may explode. Do not attempt to recharge non-rechargeable batteries (alkaline). Dispose of batteries in accordance with local regulations. Keep batteries away from children.

When the status LED **[4]** lights up green and red, the batteries are empty. Replace the batteries immediately **[10]**. Proceed as follows:
1. Slide the battery cover **[8]** downwards to open it.
2. Remove the battery holder **[7]** from the handle.
3. Insert 4 identical AA batteries into the battery holder. Respect the polarity as indicated inside the holder.
4. Slide the battery holder back into the handle and close the cover.

6.2   Attaching Tools

Place the plastic clamp of the tool over the narrow part of the camera head as indicated **[9]** and close it. Make sure it snaps into place.

- Attach the magnetic top to the camera to pick up small metal pieces from difficult to reach locations.
- Attach the hook to retract wires or other small objects.
- Use the small mirror to look behind corners.

To detach a tool, open the clamp using your fingernail and slide the tool over the camera head. Always store tools in their bag.

6.3   Installing the iSnakescope App

Before you can use the camera, you have to install the iSnakescope app on your mobile device (iOS or Android).
1. Make sure that your mobile device is connected to internet and open the App Store (iOS) or Google Play (Android).
2. Search for the iSnakescope app and follow the on-screen instructions to install it on your device.

6.4   Connecting to the Camera

The camera generates a Wi-fi hotspot that allows the image transfer to your mobile device. You have to connect your mobile device to the hotspot to see live camera images, record a video, take a snapshot, and change settings. Playback/deletion of recorded videos is also available when your mobile device is not connected to the hotspot.
Note: while your mobile device is connected to the hotspot, it has no internet connection.

Connecting to an iOS Device

To connect your iOS device to the camera, proceed as follows:
1. Switch on the camera: turn the thumbwheel **[5]** until you hear a click.
The camera goes through a start-up process and creates a Wi-Fi hotspot. This takes about 40 seconds.
2. Wait until the LED starts flashing slowly (1 time/second = the hotspot is ready).
3. On your iOS device, open **Settings >Wi-Fi** and set **Wi-Fi** to **ON**.
4. In the list of available networks, select **iSnakescope**.
Note: it may take a minute or longer for the Wi-Fi hotspot to appear in the list.
The first time that you try to connect, you have to enter the Wi-Fi password.
5. Enter the Wi-Fi password (the default password is 12345678) and tap **Join**.
6. Wait until the connection is established. The green LED on the camera flashes quickly (2 times/second) and a checkmark appears next to the iSnakescope network name.
7. Exit Settings.

Connecting to an Android Device

To connect your Android device to the camera, proceed as follows:
1. Switch on the camera: turn the thumbwheel **[5]** until you hear a click.
The camera goes through a start-up process and creates a Wi-Fi hotspot. This takes about 40 seconds.
2. Wait until the LED starts flashing slowly (1 time/second = the hotspot is ready).
3. On your Android device, open **Menu > System Settings** and set **Wi-Fi** to **ON**.
4. In the list of available networks, select **iSnakescope**.
Note: it may take a minute or longer for the Wi-Fi hotspot to appear in the list.
The first time that you try to connect, you have to enter the Wi-Fi password.
5. Enter the Wi-Fi password (the default password is 12345678) and tap **Connect**.
6. Wait until the message "Connected" appears on the screen. The green LED on the camera flashes quickly (2 times/second).
7. Exit the menu.

7.   Using the App on an iOS Device

7.1   Live Images, Videos, and Snapshots

Viewing Live Images

To view live images, proceed as follows:
1. Make sure that the camera is switched on and your iOS device is connected to the iSnakescope Wi-Fi hotspot.

2. On your iOS device, tap the iSnakescope icon to open the iSnakescope app.
The app's splash screen appears:

After a few seconds the live image of the camera and the control buttons appear on the screen:

You are now ready to use the camera.

⚠️	Never insert the camera in energised/operational machines or equipment.

3. Insert the camera head **[1]** into the space that you want to inspect.
   o The gooseneck should easily manoeuvre into position. Do not apply force. If necessary, pull back the gooseneck and adjust the bend until the camera head is pointing at the desired location.
     Caution: The bending radius of the gooseneck must be at least 4.5 cm.
   o For the best images, hold the lens at ± 6 cm from the object to inspect.
4. Turn the thumbwheel **[5]** to adjust the intensity of the LEDs on the camera head.
5. To switch off the camera, turn the thumbwheel until you hear a click.

Taking a Snapshot

To take a snapshot of the current image on the screen, tap the snapshot button [icon]. The app stores the snapshot in jpg format in the Photos app on your iOS device. In Photos you can delete any unwanted snapshots.

Recording a Video
To record a video, proceed as follows:

1. From the live images screen, tap the record button [icon]. The app records the live images in mov format.

2. To stop recording, tap the stop button [icon].

Watching a Recorded Video
To watch a recorded video, proceed as follows:

1. From the live images screen, tap the playback button [icon]. The list of recorded videos appears:

The most recent video is at the top of the list.
2. Tap the video that you want to watch. The video starts to play automatically.
   o Tap the image to display the video control buttons.
   o Use the pause ❙❙ and play ▶ buttons to pause or continue playback.
3. Tap **Done** to return to the list of recorded videos.

Deleting Videos
You can delete videos one by one, or delete all videos at once. Proceed as follows:
1. From the live images screen, tap the playback button to open the list of recorded videos.
   o To delete one video, tap **Delete**, tap the red minus sign ⊖ next to the video that you want to delete, and then tap the red **Delete** button at the right-hand side to confirm.
   o To delete all videos, tap **Clear** and tap **Yes** to confirm.
2. To return to the live images screen, tap **Video** in the left top corner of the screen.

Sharing Snapshots and Videos
To share your snapshots and videos, use the Photos app on your iOS device. The snapshots are immediately available in Photos when you make them; you need to export recorded videos to the Photos app manually.
To export a video to Photos, proceed as follows:
1. From the live images screen, tap the playback button to open the list of recorded videos and tap **Export**.
2. Tap the **Export** button next to the video that you want to export.
3. Repeat for each video that you want to export.
4. To return to the live images screen, tap **Video** in the left top corner of the screen.
Your snapshots and videos are now ready for sharing.
Remember that your mobile device is not connected to internet as long as it is connected to the camera Wi-Fi hotspot. If you need an internet connection to share the files (for example, via Skype), then disconnect your iOS device from the iSnakescope hotspot first, and re-establish your normal internet connection.
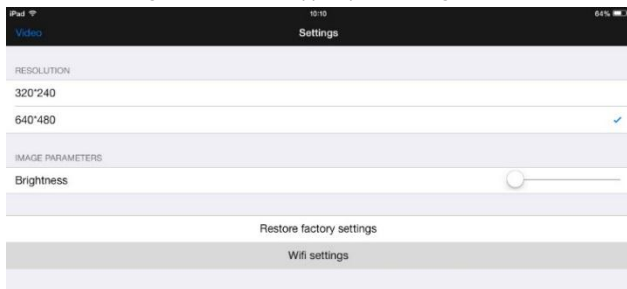**Note:** some mobile phones and PCs may need the VLC video player to play the videos.

7.2   Configuration

Image Resolution

To choose the image resolution, proceed as follows:

1.   From the live images screen in the app, tap the settings button [icon]. The Settings screen appears:

2.   Under **RESOLUTION**, select the desired image resolution.
3.   To return to the live images screen, tap **Video** in the left top corner of the screen.

Image Brightness

You can adjust the image brightness as follows:

• On the camera: turn the thumbwheel **[5]** to adjust the brightness of the LEDs in the camera and so provide a brighter or darker image.
   Note: using the LEDs at a higher brightness decreases the camera's battery life.

• In the iSnakescope app: use the brightness slider in the Settings screen.

To adjust the image brightness in the app, proceed as follows:

1.   From the live images screen, tap the settings button [icon].
2.   Move the **Brightness** slider to adjust the image brightness.
3.   To return to the live images screen, tap **Video** in the left top corner of the screen.

Wi-Fi Settings

You can rename the iSnakescope Wi-Fi hotspot, and you can change the password. **Note:** the first time you reconnect after changing the name or password, you have to enter the password again.

Proceed as follows:

1.   From the live images screen, tap the settings button [icon].
2.   Tap **Wifi settings**. The Wifi Settings screen appears:

3.   To change the name of the Wi-Fi hotspot, type the desired name in the **SSID** box. The name can be any combination of letters and numbers that is at least 8 characters long.
4.   To change the password, type the desired password in the **Password** box. The password can be any combination of letters and numbers that is at least 8 characters long.
5.   Tap **OK** to confirm the changes.
6.   To return to the live images screen, tap **Video** in the left top corner of the screen.

8.   Using the App on an Android Device

8.1   Live Images, Videos, and Snapshots

Viewing Live Images

To view live images, proceed as follows:

1.   Make sure that the camera is switched on and your Android device is connected to the iSnakescope Wi-Fi hotspot.

2.   On your Android device, tap the iSnakescope icon [icon] to open the iSnakescope app.
   The app's splash screen appears:

After a few seconds the live image of the camera and the control buttons appear on the screen:

You are now ready to use the camera.

⚠️ Never insert the camera in energised/operational machines or equipment.

3. Insert the camera head **[1]** into the space that you want to inspect.
  o The gooseneck should easily manoeuvre into position. Do not apply force. If necessary, pull back the gooseneck and adjust the bend until the camera head is pointing at the desired location.
    Caution: The bending radius of the gooseneck must be at least 4.5 cm.
  o For the best images, hold the lens at ± 6 cm from the object to inspect.
4. Turn the thumbwheel **[5]** to adjust the intensity of the LEDs on the camera head.
5. To switch off the camera, turn the thumbwheel until you hear a click.

Taking a Snapshot

To take a snapshot of the current image on the screen, tap the snapshot button 📷 . The app stores the snapshot in jpg format in a subfolder named "iSnakescope" in the "SD card" folder on your Android device. Note that snapshots are saved there, even if there is no SD card installed, or if the SD card is full. If the SD card is missing or full, the message "Image Saved in Album!" appears on the screen when you take a snapshot.
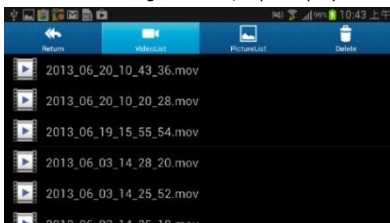
Recording a Video
To record a video, proceed as follows:

1. From the live images screen, tap the record button 🔴 . The app records the live images in mov format in a subfolder named "RecordVideo" in the "SD card" folder on your Android device. Note that videos are saved there, even if there is no SD card installed, or if the SD card is full.

2. To stop recording, tap the stop button ⏹ .

Watching a Recorded Video
To watch a recorded video, proceed as follows:

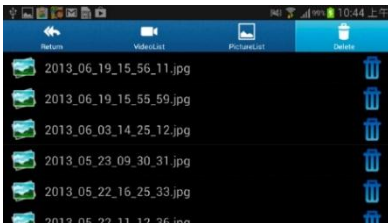**1.** From the live images screen, tap the playback button ▶ . The list of recorded videos appears:

The most recent video is at the top of the list.
2. Tap the video that you want to watch. The video starts to play automatically.
3. To return to the live images screen, tap **Return** in the left top corner of the screen.

Deleting Videos and Snapshots

You can delete any unwanted videos or snapshots from the folders where they are stored. Proceed as follows:
1. Exit the iSnakescope app.
2. Locate your iSnakescope folder.
   o To delete a video: tap the **Delete** button in the upper right corner, and then tap the delete icon next to the video that you want to delete.
   o To delete a snapshot: tap **PictureList** to display the list of snapshots, then tap the **Delete** button in the upper right corner, and then tap the delete icon next to the snapshot that you want to delete.

3. To return to the live images screen, tap **Return** in the left top corner of the screen.

8.2   Configuration

Image Resolution

To choose the image resolution, proceed as follows:

1. From the live images screen, tap the settings button . The Setting screen appears:

2. Tap **Resolution Settting** and select the desired image resolution.
3. To return to the live images screen, tap **Close**.

Image Brightness

You can adjust the image brightness as follows:

- On the camera: turn the thumbwheel **[5]** to adjust the brightness of the LEDs in the camera and so provide a brighter or darker image.
  Note: using the LEDs at a higher brightness decreases the camera's battery life.
- In the iSnakescope app: use the brightness slider in the Setting screen.
To adjust the image brightness in the app, proceed as follows:

1. From the live images screen, tap the settings button .
2. Tap **Brightness Settting** and move the brightness slider to adjust the image brightness.
3. To return to the live images screen, tap **Close**.

Wi-Fi Settings

You can rename the iSnakescope Wi-Fi hotspot, and you can change the password. **Note:** the first time you reconnect after changing the name or password, you have to enter the password again.
Proceed as follows:

1. From the live images screen, tap the settings button .
2. Tap **Wifi Setting**.
3. To change the name of the Wi-Fi hotspot, type the desired name in the **SSID** box. The name can be any combination of letters and numbers that is at least 8 characters long.
4. To change the password, type the desired password in the **Password** box. The password can be any combination of letters and numbers that is at least 8 characters long.
5. Tap **OK** to confirm the changes.
6. To return to the live images screen, tap **Close**.

9.   Troubleshooting

Resetting the App

If you experience any problems, you can reset the app. This also resets the Wi-Fi hotspot name (to iSNAKESCOPE) and password (to 12345678). Proceed as follows:

1. From the live images screen, tap the settings button .
2. Tap **Restore factory settings** and tap **Yes** to confirm.
The app resets image resolution, brightness, and the hotspot name and password.
3. To return to the live images screen, tap **Video** in the left top corner of the screen (iOS) or tap **Close** (Android).

Resetting the Camera

If you experience any problems, and resetting the app does not help, you can also reset the camera. Proceed as follows:
1. Take a thin pin to push the reset button **[6]** during ± 5 seconds. The green status LED goes out.
During reset, the status LED stays out for 10 seconds, then lights up again.
2. Wait until the green LED starts flashing again.
3. If necessary, reconnect the camera to the app.

10.   Cleaning and Maintenance

• Wipe the device with a lint-free, soft anti-static cloth. Do not use abrasive solutions or solvents.
• Clean the gooseneck and camera with clean water after each use and let it dry before storing it.

11.   Technical Specifications

pick-up element	1/6.5" CMOS	
number of pixels	640 (H) x 480 (V)	
frame rate	30 fps	
viewing angle	54°	
focus	6 cm	
minimum bending radius	45 mm	
Wi-Fi range	maximum 18 m	
white balance	automatic	
IP rating	IP67 (camera + flexible tube)	
power supply	battery	4 x AA battery (order code HR6C/27) (not incl.)
	battery lifetime	± 4 h
dimensions	camera	Ø 8 (± 0.1) x 55 mm
	flexible tube	80 cm (± 2 cm)
operating temperature	0–45 °C	
operating humidity	15–85 % RH	
weight	270 g	

Use this device with original accessories only. Velleman nv cannot be held responsible in the event of damage or injury resulting from (incorrect) use of this device.
For more info concerning this product and the latest version of this manual, please visit our website www.velleman.eu.
The information in this manual is subject to change without prior notice.

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