

USER MANUAL

SparkVision Smart Glasses SG-SV-01

1. General Information

 Read this manual before using the product.

 Pay attention to all warnings and precautions.

This manual applies to the following product:

Field	Details
Product name	SparkVision smart glasses
Commercial name	SparkVision Smart Glasses SG-SV-01
Model/type	SG-SV-01
Product category	Non-medical assistive consumer product
Product identifier	The serial number, product ID, batch number, or other product identifier appears on the product packaging or accompanying documents.
Manufacturer	"SPARK VISION IS" Ltd.
Manufacturer address	Sofia, 1164, Lozenets district, "Krum Popov" 1 str., Bulgaria
VAT	BG206677712
Website	https://sparkvision.tech
EU Declaration of Conformity	SparkVision smart glasses SG-SV-01 EU Declaration of Conformity

The following symbols are used in this manual, on the product, or on the packaging:

Symbol	Description
	Warning or caution. Read the related safety instruction before use.
	Read the user manual before use.
	Manufacturer.
	Catalogue or model reference.
	Serial number or product identifier.
	Fragile. Handle with care.
	Keep away from heat and direct sunlight.
	Keep dry.
	CE mark. Product conformity with applicable European requirements.
	Do not dispose of with household waste. Use authorised electrical and electronic waste collection.

2. Intended Use

SparkVision Smart Glasses SG-SV-01 are a non-medical assistive consumer product. The product captures visual information from the surrounding environment and converts selected information into spoken audio to support everyday information access.

This product is not a medical device. It is not intended to diagnose, prevent, monitor, treat, alleviate, or compensate for disease, injury, or disability. It is not a safety device, navigation device, emergency device, payment verification device, food-safety device, or legal/financial decision tool.

The product is intended for use by people who want spoken access to visual information, including users with visual impairments. Use by children or vulnerable users should be supervised by a responsible adult or caregiver.

3. Package Contents and Compatible Accessories

The standard package includes:

- SparkVision Smart Glasses SG-SV-01.
- 5 V power adapter, recommended at 2.4 A or higher.
- Transport case.
- Ring case containing:
 - Hard-back zip travel case.
 - Five stretch-fit rings for different finger sizes.
 - Portable protection for the ring.
 - Charging clip, with full ring charge in about 60 minutes.
 - 1 m USB-A to USB-C charging cable for the charging clip.
- SparkVision Smart Ring module with supplier-stated IP67 water and dust protection.
- Printed or electronic product information.

Compatible optional accessories include Bluetooth headphones, bone-conduction headphones, and an external microphone.

Use only certified chargers, cables, and accessories in good condition. Do not use damaged, modified, wet, or visibly worn accessories.

4. Key Functions

- Reading printed or displayed text, with positioning guidance.
- Voice assistant for asking questions by voice.
- Describing scenes and objects.
- Continuous environment description.
- Reading food-product labels and expiry information when visible.
- Reading receipts.
- Recognising visible banknotes.
- Measuring light level and naming colours.
- Announcing date and time.
- Working with a connected mobile app (online and offline mode), which can provide the voice of the glasses.
- Connecting Bluetooth headphones or speakers.
- Voice selection, reading speed, and a foreign-language text reading mode.
- Settings for volume, Wi-Fi, ring connection, positioning guidance, software update, restart, factory reset, and language selection.

All recognition results are informational only. They may be incorrect, incomplete, delayed, unavailable, or affected by lighting, motion, framing, image quality, network status, or software limitations.

5. Initial Setup

1. Unpack the glasses and check the frame, camera, buttons, speakers, charging port, cable, and accessories for visible damage.
2. Charge the glasses fully before first use.
3. Turn the glasses on. Press the power button once, then press it again and hold it for about 5 seconds.
4. Connect to Wi-Fi from Settings. Open Settings, choose Network, select your Wi-Fi network, and enter the password letter by letter, then hold the front button to connect (see section 9). After a successful connection, the device restarts.
5. Connect the Smart Ring from Settings.
6. Check for software updates before first regular use. Open Settings, choose Software Update, and confirm Install when prompted. Do not turn off power during an update.

Do not use the product if any part appears damaged, overheated, swollen, corroded, wet, or unsafe.

6. Charging and Power

- Use a certified 5 V USB charger and a charging cable in good condition.
- Recommended charger current: at least 2.4 A.
- Battery type: rechargeable lithium-ion battery.
- Typical full charge time: about 0.5 to 1 hour.
- Typical operating time: about 4 hours, depending on mode, volume, wireless connection, battery age, and environment.
- Expected charging cycles: at least 1200 under normal use.
- Recommended charging temperature: +5 to +35 C.
- Do not charge in wet, humid, dusty, or condensing environments.
- Do not puncture, bend, crush, heat, burn, or open the battery or product housing.
- If the product becomes unusually hot, smells unusual, changes shape, leaks, or shows visible battery swelling, stop using it and contact SparkVision.
- The battery is not user-replaceable.

- To turn off the glasses, hold the power button for about 5 seconds.
- Charge the Smart Ring with its charging clip and USB-A to USB-C cable connected to a certified 5 V USB power source. Typical Smart Ring battery life is up to 5 days of use or up to 20 days standby, depending on use and battery age.
- Wipe sweat, dust, and moisture from the Smart Ring and charging clip before charging.
- Do not expose the Smart Ring charging clip to water, rain, liquids, or snow.
- Do not use a damaged or modified Smart Ring, charging clip, cable, or power source.

7. Controls

The buttons perform different actions depending on the current context (menu, reading, setting):

- **Front button:** selects or activates the current function. During reading or description it pauses and resumes. Hold it to exit the current function.
- **Middle button:** moves forward, scrolls up, or increases a setting. During reading it skips 5 seconds forward. Hold it to increase the reading speed.
- **Back button:** moves backward, scrolls down, or decreases a setting. During reading it skips 5 seconds back. Hold it to decrease the reading speed.
- **Smart Ring:** push forward or backward to navigate, press to select, and hold for about 5 seconds to exit the current function. The ring mirrors the same actions as the frame buttons.
- Volume can also be adjusted directly from the main menu: hold the back button to decrease or the middle button to increase.

8. Using Functions

Use the middle and back buttons to navigate to the function you want and press the front button to select it. For capture-based functions, hold the item or scene steadily in front of the camera and wait until the product speaks the result.

While you are listening to a spoken result (reading or description), the following controls apply: the middle button skips 5 seconds forward, the back button skips 5 seconds back, the front button pauses and resumes, and holding the middle or back button increases or decreases the reading speed. After the audio ends, the middle button starts it again from the beginning, the back button goes 5 seconds back, and a short press of the front button takes a new photo and starts a new run.

Hold the front button or ring button for about 5 seconds to exit the current function.

9. Function Guidance

The controls during a spoken result (skipping, pausing, speed, replay, exit) are common to all the functions below and are described in section 8.

Read Text

Hold the text about 30 to 40 cm in front of the camera, well lit and steady. When positioning guidance is on and the frame is not suitable, you will hear prompts such as "move closer", "move right", or "hold still" — follow them until reading begins. During these prompts, a short press of the front button stops the guidance and immediately takes a photo of the whole scene, reading all the visible text — useful for a street sign, a poster, or the text around you, rather than a single object such as a book. The result may omit, misread, or reorder text if the page is curved, reflective, small, moving, partially hidden, or poorly lit.

Voice Assistant

The voice assistant works from the main menu. Hold the front button and, without releasing it, speak your question. At the same moment the camera automatically takes a photo, so you can ask about something in front of you or general questions. When you release the button, the question is sent and after a short wait you will hear the answer. Hold the front button to exit.

Describe Environment

Point the camera at the area you want described. After the description ends, a short press of the front button takes a new photo and starts a new description. The product may mention objects, signs, people, layout, stairs, holes, or obstacles. Descriptions are informational only and must not be used as the only basis for movement, crossing roads, avoiding hazards, or making safety decisions.

Continuous Environment Description

The camera continuously describes what it sees. A short press of the front button immediately takes a new snapshot without waiting for the next cycle. Use this mode only when it is safe to do so. Stop moving before listening to or acting on information that requires attention. Do not use this mode as your only navigation aid.

Food Products and Expiry Date

Point the camera at the product label so the name, ingredients, allergens, warnings, price, and expiry date are visible. When positioning guidance is on and the frame is not suitable, you will hear prompts — follow them. Always check the original label before eating, buying, or serving food. Do not rely on the product for allergen, expiry, ingredient, or food-safety decisions.

Receipts

Place the receipt flat and keep the full receipt visible. When positioning guidance is on and the frame is not suitable, you will hear prompts; if you do not want to wait, a short press of the front button takes the photo right away and reads the receipt. Receipt totals, currencies, dates, and items may be misread. Always check the original receipt before payment, reimbursement, accounting, or financial decisions.

Banknote Recognition

Place banknotes side by side, not stacked on top of each other, and coins face up, clearly visible in front of the camera. Banknote recognition is informational only. Always verify money independently before making or accepting payment.

Light

This option works continuously and guides you toward the light source through tones — a low tone means weak or peripheral light, a high tone means strong light directly ahead. When the camera is pointed straight at the source, the tone becomes a sustained signal. A short press of the front button gives a detailed description of the lighting and the source. Hold the front button to exit. Results may be affected by shadows, screens, reflections, and camera exposure.

Colours

To recognise the colour of a specific object, hold it in your hand in front of the camera with no other objects around. You will hear its main colour and any additional shades. Hold the front button to exit. Colour results may be affected by lighting, shadows, screens, and reflections.

Date and Time

The date and time depend on the device settings and may be wrong if the device time is incorrect.

Settings

Settings navigation. Use the middle and back buttons to scroll through the options, and the front button to select. Hold the front button to return to the main menu.

Volume. The middle button increases, the back button decreases. The front button saves and exits; holding it exits without saving. Volume can also be adjusted directly from the main menu — hold the back button to decrease or the middle button to increase.

Battery. You hear the battery percentage for all connected devices — glasses, ring, and headphones — by scrolling with the middle and back buttons. It is recommended to check without the charger connected. When the battery drops below 10 percent you receive an automatic notification.

Wi-Fi. Saved networks appear first; the front button connects directly without a password. After that, scanning for new networks begins: scroll with the middle and back buttons and select with the front button. The password is entered letter by letter — the middle and back buttons scroll through the characters, the front button confirms a character, and holding the middle or back button switches the category (lowercase, uppercase, numbers, special characters). Hold the front button to connect when you are ready.

Ring connection (Smart Ring). The search for a control ring begins. Hold the front button to stop the search.

Bluetooth headphones. The search for Bluetooth headphones or speakers begins. Scroll through the devices found with the middle and back buttons and connect with the front button. Hold the front button to exit.

Mobile-app connection. Connects the glasses to a mobile device for processing. The app must be installed and open on the device. After selecting, scanning begins; on a successful connection you hear confirmation from both devices and return to the main menu automatically. The same option, when it says "Disconnect from mobile app", is used to disconnect.

Online/offline mode. Online mode uses the internet for more accurate results, while offline mode works without internet. When the glasses are connected to the mobile app, in both modes the voice comes from the app. The front button confirms; holding it exits without changes.

Voice selection. Use the middle and back buttons to scroll through the available voices and hear examples, and the front button to select. Hold the front button to exit without changes.

Reading speed. First choose which speed to set (overall speed, reading speed, internal sounds speed, and others), then the middle button increases and the back button decreases, with an example on each change. The front button confirms. The speed can also be changed during reading — hold the middle or back button while listening.

Foreign-language reading mode. Three modes: the first reads everything with the current voice, pronouncing the foreign text phonetically; the second recognises the language of each part of the text and reads it with the native voice for that language; the third translates the entire text into your language before reading it. The front button confirms your choice.

Positioning guidance. Determines whether, when reading text, labels, and receipts, you hear positioning prompts when the frame is not suitable. When on, you are guided to frame the text and only the text is read; when off, the whole image is read immediately, without prompts. Even when on, during reading a short press of the front button stops them and immediately takes a photo of the whole scene. By default, the guidance is on. The front button toggles between on and off.

Language selection. Use the middle and back buttons to scroll through the available languages, and the front button to select. After selecting, wait for the mode to load — the glasses return to the first option in the main menu. If you accidentally select an unknown language, from the main menu press the back button once to reach settings, enter, press the back button again for the language change option, and select the correct one.

Software update. Checks for a new version. The front button installs it, or holding it exits without updating. After installation the glasses restart automatically, sometimes several times — wait until you hear that the glasses are ready for use. An internet connection is required.

Factory reset. Restores the glasses to factory settings and deletes all user settings. The front button confirms; holding it exits without changes.

10. Getting Better Results

- Use good lighting. If unsure, use the Light option first.
- Keep text, labels, money, and receipts steady while capturing.
- Start with the item about 30 to 40 cm from the camera.
- For small text, move closer while keeping the full item visible.

- Clean the camera area regularly.
- If a result sounds wrong, change distance, angle, or lighting and try again.

11. Warnings and Precautions

Important warnings:

- Do not use the glasses as your only navigation aid in traffic, near stairs, on platforms, near water, near vehicles, or in any hazardous place.
- Do not use recognition, description, transit, or AI outputs as the sole basis for safety, traffic, emergency, medical, medication, food, allergen, financial, legal, payment, or accessibility decisions.
- Do not use the product while driving, cycling, operating machinery, crossing roads, or performing tasks requiring full attention.
- Stop moving before using modes that require attention.
- Do not use or charge the product in wet, humid, dusty, or condensing environments.
- Do not use the product if the frame, camera, speakers, charging port, cable, battery, or accessories appear damaged.
- Do not open the housing or attempt unauthorised repairs.
- Do not disassemble, modify, adjust, or repair the Smart Ring or charging clip. Service and repair must be performed only by qualified service personnel.
- Keep the Smart Ring and ring-size accessories away from small children. The Smart Ring contains small parts and a lithium-ion battery and is not suitable for children under 3 years of age.
- Do not allow children to use the Smart Ring.
- The Smart Ring contains magnetic material. Consult a qualified health professional if you use an implantable electronic device and are unsure whether magnetic material can affect it.
- Do not submerge the Smart Ring or expose it to water beyond the supplier-stated IP67 guidelines. The charging clip is not water resistant.
- Keep the product away from excessive heat, direct sunlight during storage, open flames, and strong mechanical impact.
- Respect privacy and local laws when capturing images, audio, video, text, faces, documents, addresses, payment data, restricted areas, or other sensitive information.

12. Technical Specifications

Specification	Details
Wireless interfaces	Bluetooth and Wi-Fi-based communication.
Bluetooth frequency band	2400-2483.5 MHz.
Bluetooth maximum radiated power	<= 12 dBm.
Wi-Fi frequency band	2.4 GHz, 2400-2483.5 MHz.
Wi-Fi maximum radiated power	<= 20 dBm.
Smart Ring Bluetooth frequency band	2402-2480 MHz.
Smart Ring maximum transmit power	< -8.55 dBm EIRP.
Charging	USB charging cable with certified 5 V charger.
Battery	Rechargeable lithium-ion battery, not user-replaceable.
Full charge time	About 0.5 to 1 hour.
Typical operating time	About 4 hours, depending on use.
Expected charging cycles	At least 1200 under normal use.
Camera	Integrated front camera for image capture.
Audio	Integrated speakers.
Controls	Frame buttons and compatible Smart Ring.
Water/dust protection	No declared IP protection rating unless stated on the product label or sales documents.
Smart Ring water/dust protection	Supplier-stated IP67 protection for the ring module. The charging clip is not water resistant.

13. Radio Parameters and Compliance

The product uses wireless interfaces for Wi-Fi connection, Bluetooth pairing, and compatible ring control. Use the product only in countries and regions where these radio interfaces are permitted.

Hereby, "SPARK VISION IS" Ltd. declares that the radio equipment type SparkVision smart glasses, model SG-SV-01, is in conformity with Directive 2014/53/EU and other applicable EU requirements when used as intended and in accordance with this manual. The EU Declaration of Conformity for this model is available here: [SparkVision smart glasses SG-SV-01 EU Declaration of Conformity](#).

14. Maintenance and Cleaning

- Turn the product off before cleaning.
- Clean with a dry or slightly damp microfiber cloth.
- Keep the camera clean. A dirty camera can cause poor recognition results.
- Do not use solvents, alcohol, abrasive cleaners, ultrasonic cleaning, or excessive water.
- Do not allow liquid to enter openings.
- Keep software updated when updates are available.

15. Operating Conditions

- Use in dry environments.
- Operating temperature: 0 to +40 C.
- Operating humidity: 10-85% RH, non-condensing.
- Avoid strong vibration, impact, dust, condensation, and direct exposure to rain.
- Do not block the camera, speakers, microphone if present, or charging port during use.

16. Storage and Transport

- Turn the product off before storage.
- Disconnect the USB cable.
- Store in the protective case.
- Store in a cool, dry place without condensation.
- Storage temperature: -20 to +70 C.
- Avoid dropping, bending, crushing, or placing heavy objects on the product.

17. Troubleshooting

- **Product does not turn on:** charge for at least 30 minutes, then try again.
- **No sound:** increase volume and check whether speech is paused.
- **No Wi-Fi:** check the password, restart the router, or try another network.
- **Poor recognition:** clean the camera area, improve lighting, hold the item steady, and try again.
- **Ring does not control the glasses:** check that the ring is charged, close to the glasses, and paired.
- **Voice assistant does not respond:** check the internet connection or the link to the mobile app, and speak clearly while holding the front button.
- **Bluetooth headphones do not connect:** make sure the headphones are in pairing mode and close to the glasses, then try again.
- **Online feature unavailable:** check internet connection, account status, service availability, and required permissions.
- **Software update fails:** keep the product powered and try again later. If the update cannot complete, contact SparkVision.

18. Privacy and Data Protection

Depending on the feature used, the product and related SparkVision services capture or process images, audio, recognised text, device identifiers, account information, and technical logs. Some processing happens locally. Online features transmit data securely to SparkVision services or trusted processing providers.

- Do not use the product where photography, audio recording, video transmission, or cloud processing is prohibited.
- Inform people nearby that the product captures images or audio when those features are used.
- Avoid capturing private documents, payment cards, passwords, identity documents, confidential business information, or restricted areas unless you have the right to do so.
- AI and recognition outputs may be incorrect or incomplete.
- Data is retained while the user account is active for the purposes of providing the service, improving services, and troubleshooting. If a user account is inactive for 6 months, SparkVision deletes the account and related personal data, unless a longer retention period is required or permitted by applicable law. Users can request deletion of their data at any time by contacting customer.support@sparkvision.tech.
- For privacy questions or data-rights requests, contact SparkVision using the details in this manual.

19. Service Life and Decommissioning

Expected service life is 2 years under normal use and compliance with this manual, unless otherwise stated in the purchase documents.

Stop using and decommission the product if there is irreversible mechanical damage, visible battery swelling, excessive heating, corrosion, damaged connectors, or any condition that may make the product unsafe.

Dispose of the product, batteries, and accessories through authorised collection points for electrical and electronic waste and battery waste. Do not dispose of them with household waste. Do not attempt to remove the glasses or Smart Ring rechargeable lithium-ion batteries unless instructed by SparkVision or an authorised service centre.

20. Warranty and Support

- Commercial warranty: 24 months from product delivery, unless different terms are stated in the purchase documents.
- The warranty covers manufacturing defects during normal use.
- The warranty does not cover misuse, unauthorised repair, water damage, impact damage, normal wear, unsafe chargers, or incompatible accessories.
- Users must not open the housing.
- The battery is not user-replaceable and no spare battery is supplied for user replacement.
- Repairs are performed by SparkVision or an authorised service centre. For Romania, customer service and warranty handling are provided locally, with repair performed by the Bulgarian SparkVision repair centre unless otherwise stated.
- This commercial warranty does not affect statutory consumer rights under applicable law.

21. Service and Contacts

Manufacturer and support contact: "SPARK VISION IS" Ltd. Sofia, 1164, Lozenets district, "Krum Popov" 1 str., Bulgaria VAT: BG206677712 Phone: [+359 878 63 06 76](tel:+359878630676) Website: <https://sparkvision.tech> Email: customer.support@sparkvision.tech

22. Issue and Revision Date

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