

spirocco S1

USER MANUAL

# INTENDED USE

Spirocco S1 is a portable, battery-powered spirometer for home and professional use that allows you to perform respiratory function tests. The device comes with the 'SPIROCCO' Android application, which is connected to the spirometer via Bluetooth connection. In the application, the user can start the lung function test, view and store the measured data. **IMPORTANT! Home use of S1 spirometer is intended only for self monitoring. Interpretation of the results and diagnosis shall be done by a healthcare professional!**

# PACKAGE CONTENTS



▪ Flow tube



▪ Electronic unit



▪ Charging cable



▪ User Manual

# WARNINGS



- Only use the device for its intended purpose.
- Do not use the device while charging.
- Before charging make sure that the cable is in good condition.
- Take care of the device in accordance with the maintenance instructions.
- Do not use accessories not recommended for this device.
- The electronic unit is not waterproof. DO NOT immerse the device in water or other liquid, and do not keep it under running water!

# INSTALLATION

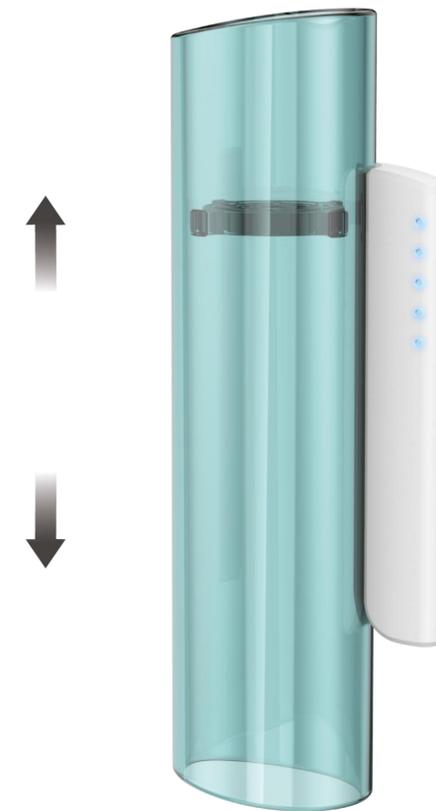


Before the first use connect the cable and charge the electronic unit until all 5 LEDs are lit.

During charging the LEDs light up one after the other.



Attach the electronic unit to the flow pipe. The accurate positioning is aided by magnets.



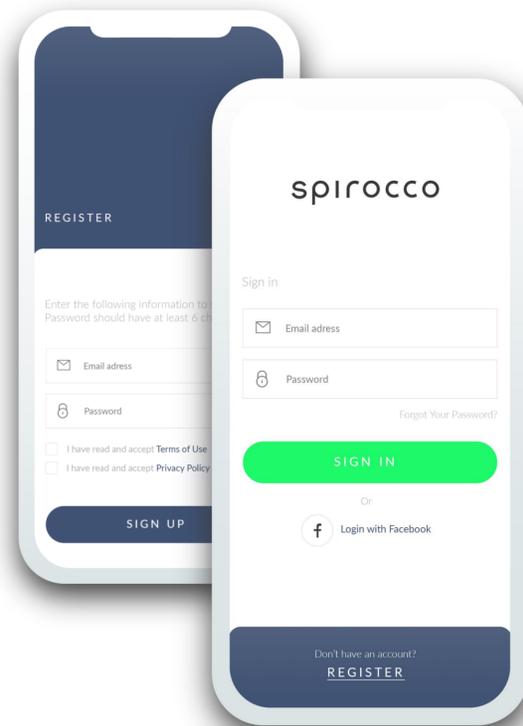
Check the battery charge level: shake the device, the number of LEDs lit on the side shows the charge level.

- 81 – 100 %
- 61 – 80 %
- 41 – 60 %
- 21 – 40 %
- 0 – 20 %

# INSTALLATION



Download the SPIROCCO app from the Google Play Store.



Register and add the information requested to evaluate the spirometric measurements.



Pair the S1 spirometer to the application with the QR code according to the instructions. Make sure your phone has a Bluetooth connection enabled.

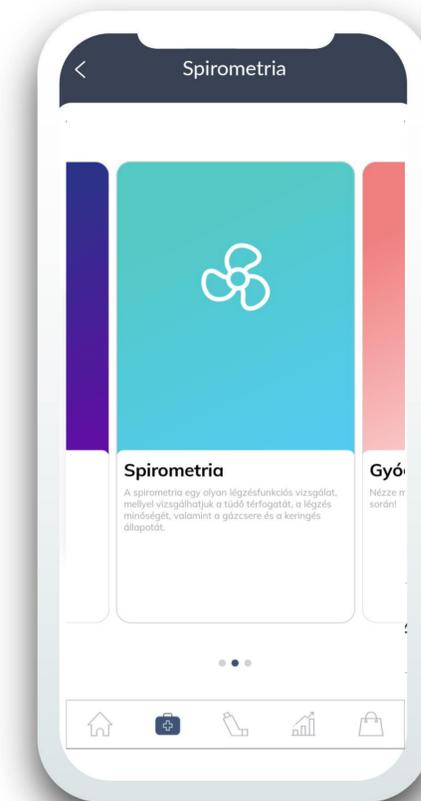
# PERFORMING A LUNG FUNCTION TEST



Open the SPIROCCO app on your phone.

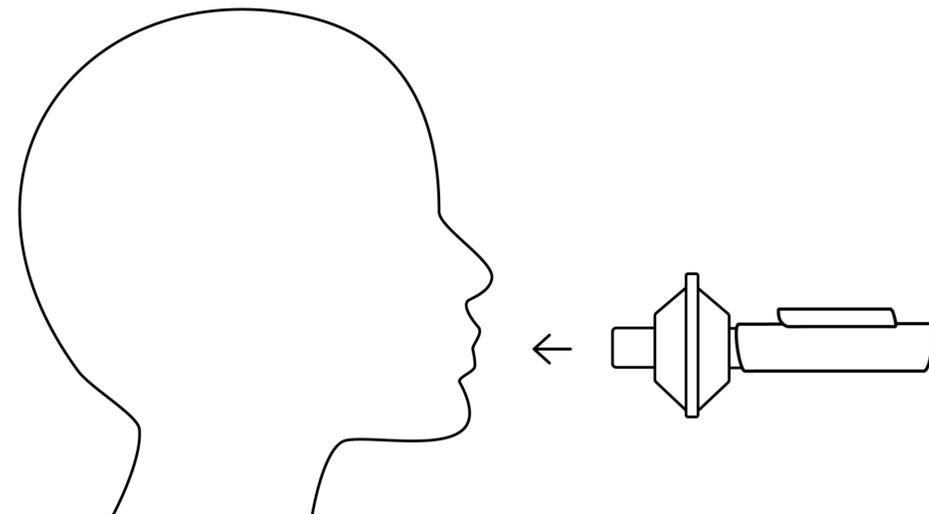
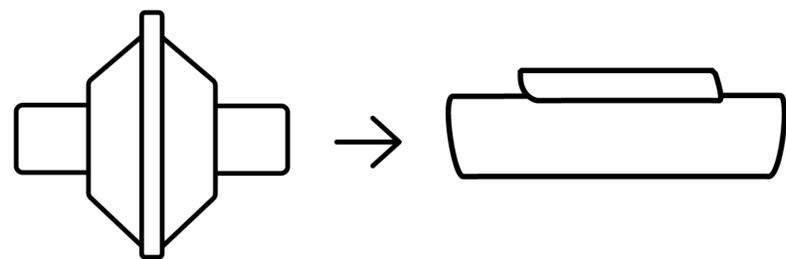


The device connects automatically. When connected, one LED on the side of the device lights up.



Start the spirometric measurement in the app.

# PERFORMING A LUNG FUNCTION TEST



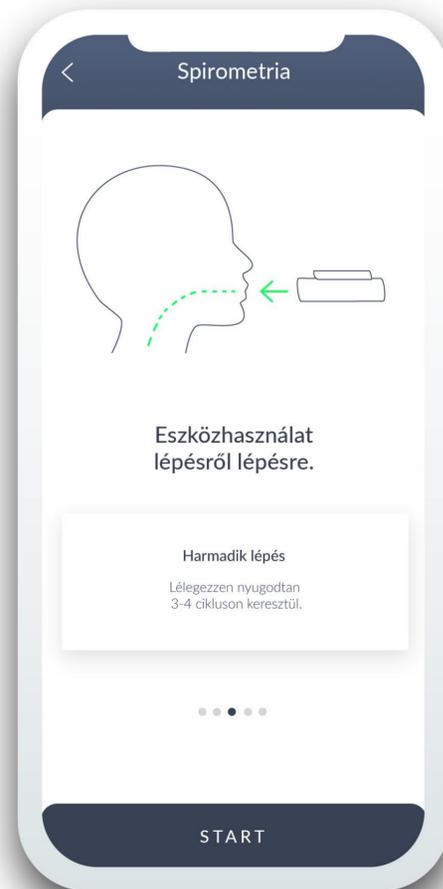
Always use a bacterial filter if the device not intended for single user only.

Note: the filter helps to avoid cross-contamination.

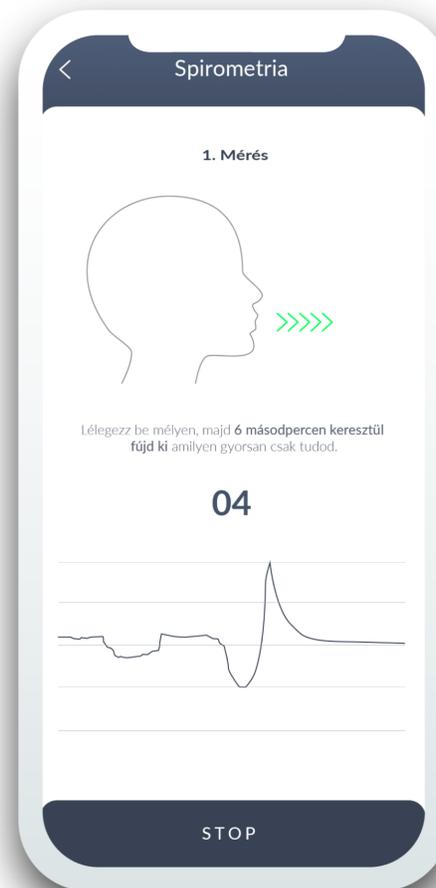
The Spirocco S1 spirometer is compatible with all standard 30 mm diameter bacterial virus (BV) filters.

Recommended BV filter: **Vitalograph BVF**

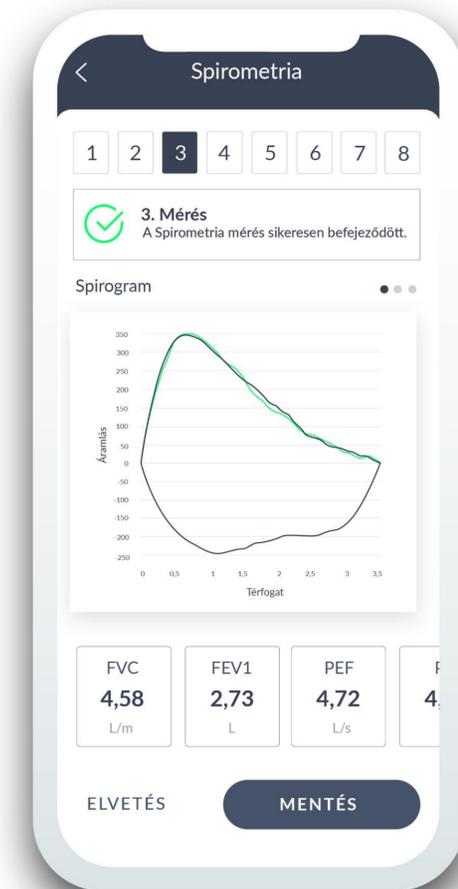
# PERFORMING A LUNG FUNCTION TEST



Read the instructions carefully before starting the respiratory function test.



The built-in countdown helps to maintain the minimum exhalation time.

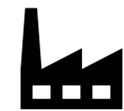


Save the best maneuver. Up to 8 attempts can be made to achieve 3 valid measurements!

# SPECIFICATIONS

| Type                  | Description   |
|-----------------------|---|
| Size                  | 134 X 34 X 48 mm ( L X W X H)                                 |
| Weight                | 80 g  |
| Communication         | Bluetooth Low Energy (BLE)                                    |
| Operation principle   | Differential pressure sensing                                 |
| Volume flow range     | + / - 14 L/s  |
| Accuracy              | + / - 3%  |
| Operation temperature | 0 – 40 °C   |
| Storage temperature   | 0 – 50 °C   |
| Power supply          | 3.7 V, 130mAh Li-ion battery                                  |
| Charger               | Micro-USB, 100 mA   |
| Operation time        | 6 hours   |
| Lifetime              | min. 300 charge cycles  |
| Standards             | MDR 2017/745, ISO 26782, ISO23747, IEC 60601-1, IEC 60601-1-2 |

# SYMBOLS AND LABEL



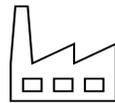
Name, address, contact details of the product manufacturer.



The product complies with the relevant legal requirements.



Charging connector: micro-USB



Date of manufacture in year / month format. yyyy/mm



Complies with the RoHS Directive (2011/65 / EU).



IEC EN 60601-1-2: 2007 standard 5.1.1. Symbol corresponding to the section, the product also includes an RF transmitter.



Serial number



Read the User Manual before use.



The product should be stored in a dry place, protected from water and rain.



Item lot ID

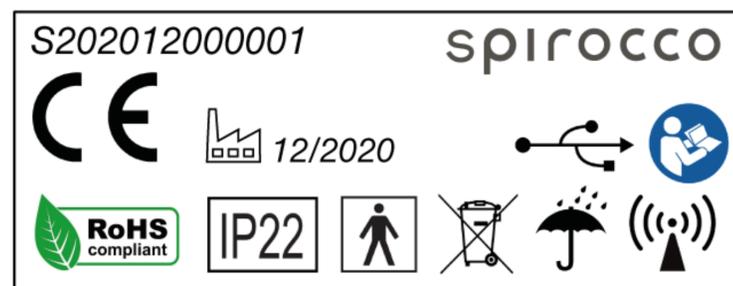


According to IEC 60601-1, the product and its components are of type BF.



This symbol is required by European Directive 2002/96 / EC on Waste Electrical and Electronic Equipment (WEEE). At the end of the product's life, the appliance should not be disposed of as normal household waste but should be taken to a WEEE-approved collection center. Due to the components built into the device, disposal as normal waste can be harmful to the environment and / or health.

## The label of the device



# MAINTENANCE, CLEANING, STORAGE

- Store the device in a dry place.
- Keep the device away from heat sources.
- Do not expose the device to direct sunlight.
- Do not store or use the device in dusty environment.

**⚠** Always clean the flow tube and the electronic unit separately!

The flow tube can be disinfected with appropriate chemicals and used again after rinsing and drying.  
[spirocco.com/cleaning](http://spirocco.com/cleaning)



The electronic unit can be cleaned with an alcohol based cleaner. Use only a microfiber cloth for cleaning!

# TROUBLESHOOTING

| Problem description   | Possible cause  | Troubleshooting   |
|---|---|---|
| <b>The device does not connect to the mobile phone application.</b> | Bluetooth is not enabled on your phone.   | Enable Bluetooth connection in the settings menu of your phone. |
| <b>The device cannot be connected to the phone.</b>                 | The battery of the device is discharged or the device is out of range of your phone's Bluetooth connection. | Charge the device and place it within 3 meters from your phone. |
| <b>The application crashes.</b>                                     | The application is in an incorrect state.   | Update and restart the application.                             |
| <b>The device does not charge.</b>                                  | The charging cable is damaged.  | Replace the charging cable.                                     |

# WARRANTY, CONTACT

SPIROCCO warrants the original purchaser that the product shall be free from defects in materials and workmanship under normal use for a period of 1 year. The warranty does not cover the battery, packaging and damage resulting from improper use of the device. For general, technical and warranty related questions please contact SPIROCCO.

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