

DOCUMENT: 16001	Description User Manual
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Spiromagic User Manual

Spiromagic ApS

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1 Introduction

Thank you for purchasing the Spiromagic device. With this product combined with the Spiromagic app you will now be able to measure and track your lung function from your home. Be aware that Spiromagic is a so-called helping device for you should not be used to diagnose a disease.

In this manual you will be guided through all procedures setting up your device and highlight the key functions of Spiromagic. Please use this guide when setting up your personal information on the Spiromagic app and when you start using the Spiromagic device.

To learn more about Spiromagic's functionalities, please visit our web site www.spiromagic.dk or send us an e-mail on info@spiromagic.dk or contact us via our [support site](#).

2 Package contents

- Spiromagic device (Spirometer)
- Quick Guide
- Carrying pouch
- 2 AAA batteries

3 Intended use

Spiromagic is a lung function monitor for people suffering from COPD and Asthma, and people in the fitness segment, that provides pre-spirometric measurements for screening purposes. A person with COPD or asthma will have the possibility to see historic measurements, and thereby know more about the situations in which their lungs function worse than normal. In the fitness segment Spiromagic can analyze your personal information so you will get a better understanding of the conditions that has an impact on your training.

4 Important note for users

Some physical conditions could affect the usage of Spiromagic. You have to be aware if you are out of breath or have a lung disease. Otherwise the measurements might be inaccurate. Be sure to contact your doctor if you are unsure about this. Wrong personal information will cause inaccurate

measurements and results. Please always store the spirometer in a dry place.

When using the spirometer you should not make any sudden moves while measuring. Furthermore you should be aware that any spitting or coughing during the measurement can have an effect on the pre-measurement results.

5 User contradiction

1. Never use this product in combination with medical electronic devices such as electronic life support Systems such as artificial heart/lungs.
2. Never put the spirometer in water, since only the mouth piece can tolerate water.
3. Do not use the spirometer when you are moving (fx. running, cycling, driving a car etc.)
4. The spirometer is for humans, do not give it your cat or dog or other animal.
5. Do not throw the spirometer.
6. The spirometer is for exhaling and should not be pressed against nose, eyes or other body parts.

The above mentioned points can cause a malfunction posing a considerable health risk to users of these devices.

Spiromagic should not be used as a device to diagnose yourself. It should be considered a guide to know about your lung function. If you believe you have lung problems you should contact your doctor.

6 Electronic parts

The Spiromagic Device (On and off position)



Spiromagic off



Spiromagic on

7 Set up requirements

The spirometer is designed to be used with the following iPod touch and iPhone models:

iPod touch (5th generation)

iPhone 4s

iPhone 5

iPhone 5s

iPhone 5c

iPhone 6

iPhone 6 plus

The iOS on these devices should be 7.0 or higher.

8 Set up procedures

8.1 Download the free app: Spiromagic

Prior to first use, download and install the Spiromagic app from Apple's app Store. It is very important that the user follows the on-screen instructions to register and complete a personal profile because data points such as height, weight and age are necessary to measure your lung function.

8.2 Preparing for set up

- iOS device is compatible and has the version V7.0 or higher.
- Wireless Internet connection provided by a router or 3G/4G via your own Apple device
- Bluetooth should be on when using it with the spirometer.

8.3 Install batteries

AAA battery installation: Open the battery cover, as shown on the picture and place batteries correctly. Place the battery cover back on the spirometer and press it until it clicks.



1 – Open the battery cover

2 – Place batteries

3 – Place battery cover back

Always dispose batteries in a battery box meant for this purpose.

Do you no longer wish to have your spirometer please send this to Spiromagic. The address can be found at www.spiromagic.com. Please send a note along with your spirometer explaining why you no longer wish to have this product or send us an e-mail on info@spiromagic.dk. Never throw your spirometer in a regular garbage can or container.

8.4 Change or clean mouth piece

You can clean or change the mouthpiece by removing it. Flip the mouthpiece to the 'on' position. Now take off the mouthpiece as shown in the picture. You can wash the mouthpiece in the dishwasher or by hand at the sink. Be aware that only the mouthpiece can be cleaned this way, not the Spiromagic device.

The mouthpiece should be put back in the same position as when you removed it.



1 – Flip the mouthpiece

2 – Take off the mouthpiece

8.5 Connect your Spirometer

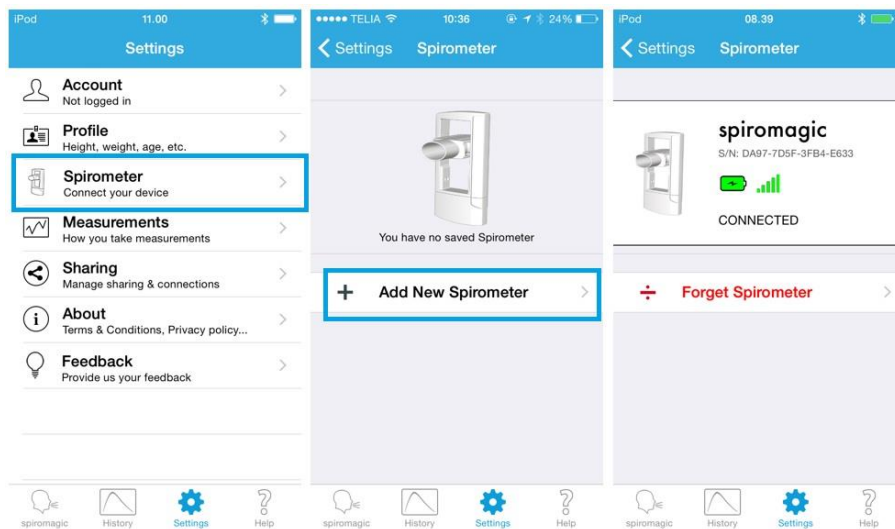
To connect your Spirometer to the Spiromagic app follow the instructions:

1. Download the Spiromagic App from App Store.



- 1 Download App 2-5 Connect Spiromagic device with app

2. Turn on Bluetooth on your Apple device. You can do this in your phone settings → Bluetooth → Slide the Bluetooth function so it turns green.
3. Open the Spiromagic app.
4. Go to settings in the Spiromagic app and press Spirometer, connect your device.
5. Press Add new Spirometer and wait until it says CONNECTED.
6. If it does not connect in the first try, close the spirometer to the 'off' position and then flip the mouthpiece up to the 'on' position.

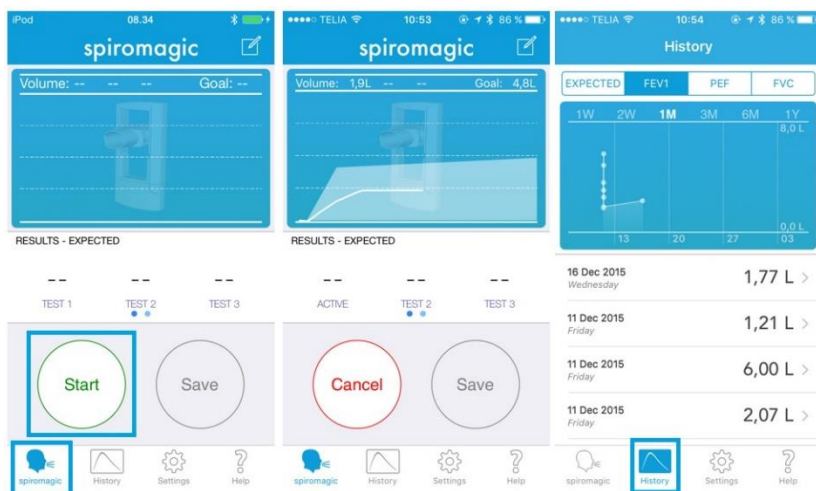


8.6 How to use

You are now ready to use you Spiromagic.

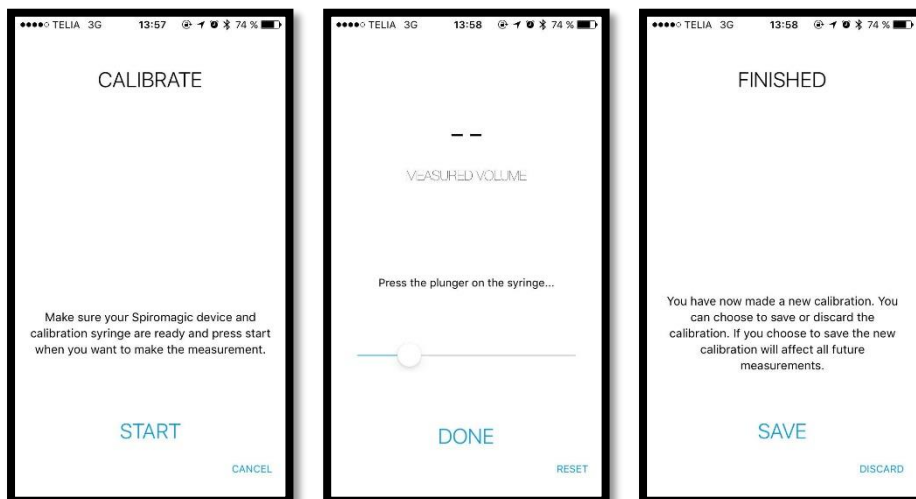
How to make a measurement:

1. Stand up when exhaling into the device (unless the physician advises otherwise).
2. Make sure the Spiromagic device is connected to the app.
3. Press “Spiromagic” in the menu.
4. When the device is ready for a test, holding the head high, breathe in as deeply as possible, hold the Spiromagic ready in front of your mouth.
5. Holding your breath, place the mouthpiece into your mouth, with the lips firmly sealed around it.
6. Press “Start”.
7. Exhale out as HARD and FAST as possible for as long as you can. Be careful not to block the mouthpiece with the tongue or teeth. A ‘spitting’ action can give false readings.
8. When the result of your exhalation shows, the device is ready for a new measurement. Three exhalations gives the best result. (You can exhale more than three times if you wish. The device will automatically calculate your lung function from the three best exhalations).
9. Press “Save” to save your measurements. All your results can be seen under “History”.



8.7 Calibration

If your measurements do not seem to be correct, maybe in relation to the measurements you have made at the doctor's, or if there is a sudden change in your results, your Spiromagic device might need to be calibrated. This can be done with an air pressure apparatus, which can control the volume of air that flows through Spiromagic. A calibration should only be done by one who have access to these apparatuses.



If you save a calibration by accident, you can always reset to factory settings. You do this by pressing 'start' and thereby pressing 'reset', and then 'save'.

If you wish to calibrate your equipment, please contact us at info@spiromagic.dk.

8.8 Instructions

For more instructions please see www.spiromagic.dk or contact us on info@spiromagic.dk or via our support [site](#). You can also see an instruction video on our [Youtube channel](#). Be aware that these videos are only provided in Danish at this moment.

9 Specifications

1. Product name: Spirometer
2. Device dimensions: L: 12cm B: 6,3cm D: 2cm
3. Weight: 82,2g (including battery) and 59,3g (no battery).
4. Measure method: Automatic electronic measurement by blowing into the Spirometer.
5. Power: 2x15V. AAA batteries

6. Measurement range: Measures lung function from the individual's blow and written personal information. It measures compared to the norm set by international standards.
7. Operating temperature: +5°C to +40°C.
8. Storage and transportation temperature: from - 5°C to + 50°C.
9. Battery life: Approx. more than 3 months with daily use.

10 General safety and precautions

1. Read all of the information in the User guide before operating this product.
2. Do not use the spirometer while moving.
3. For children under the age of 18, the device should be used under supervision of an adult.
4. Make sure that the spirometer is not wet inside before using it.
5. Treat the spirometer with care. Do not drop it or step on it. The spirometer is designed for you to have on the move and can stand a certain amount of activity. Misuse or abuse may render the electronic device to be inoperative and/or affect the features of the device.
6. People with artificial heart/lung should not be using this product without consulting a doctor first.
7. The spirometer might not be functioning correctly if it has been used, stored or transported outside the temperatures set under Specifications in this user guide.
8. This electronic device has been tested by users suffering from COPD.
9. Be sure to wipe with a soft damp cloth the mouthpiece before using the spirometer.

11 Care and maintenance

1. Do not immerse the whole spirometer in water as this will damage the spirometer.
2. The mouthpiece is detachable and may be washed-up and/or disinfected.
3. If the Spirometer is stored in temperatures outside the ones written in Specifications in this user guide, allow it to acclimatize to room temperature before use.
4. Do not attempt to disassemble the spirometer.
5. Clean the spirometer with a soft damp cloth if dirty. Do not use any solvent-based cleaners.
6. The spirometer is essentially maintenance-free and requires no user intervention.

12 Warranty Information

The spirometer is warranted free from defects in materials and workmanship appearing within 1 year from the date of purchase, when used in accordance with the instructions provided. The above warranties extend only to the original retail purchaser. We will, at our option, repair or replace without charge any product covered by the above warranties. Repair or replacement is our only responsibility and your only remedy under the above warranties. If you have any questions, please contact us on info@spiromagic.dk.

13 Note

This 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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment to an outlet on a circuit that is different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

14 FCC Warning

“THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES AND INDUSTRY CANADA LICENSE-EXEMPT RSS STANDARD(S). 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 UNDESIRE OPERATION.

15 Industry Canada (IC) Warning:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

French equivalent is:

Le présent appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas

produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.