

SPYRAS<sup>®</sup>

RESPIRATORY ANALYTICS



## **IMPORTANT**

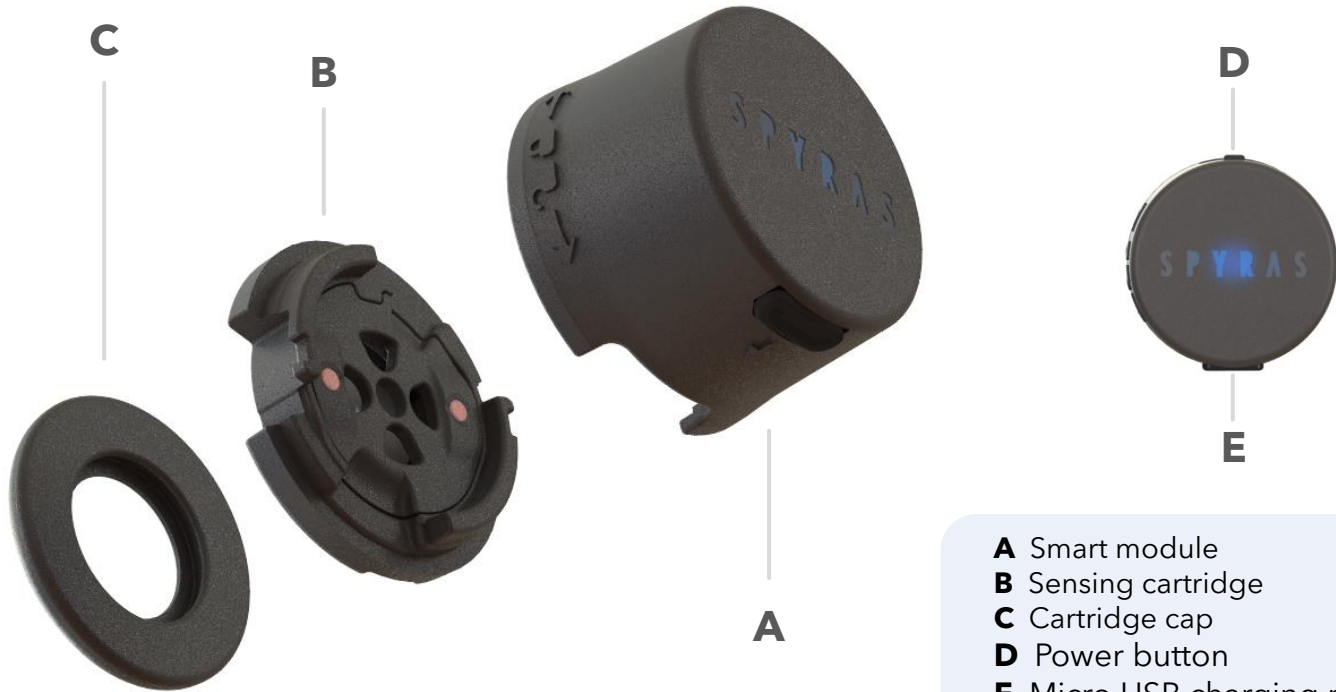
Read carefully before use.  
Keep for future reference.

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## 2. About this product

### 2.1 Reference diagram



- A** Smart module
- B** Sensing cartridge
- C** Cartridge cap
- D** Power button
- E** Micro USB charging port

# 3. Instructions for use

## 3.1 Installing the App

To install the app search for “Spyras” on the Apple App Store or scan the following QR CODE



Spyras

*Spyras App Store icon*



*QR Code - direction to App download*



You can also search for “Spyras” on the Google Play Store to download the Android app.



# 3. Instructions for use

## 3.2 Switching on and off the device

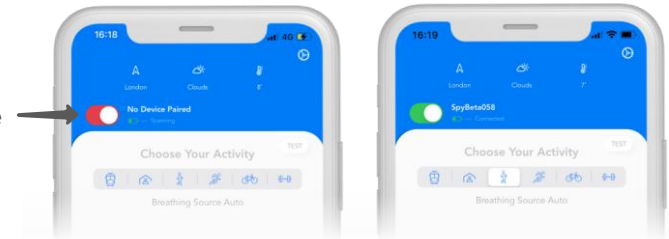
To switch on the device, navigate to the recording page of the App and hold down the power button (D) for 2 seconds. You will see the connection toggle go from red to green once the device is successfully connected.

Your device will turn off automatically if idle (not in use) for one minute and half. If you would like to switch off the device manually when the device is connected to the App you can tap the connection toggle on the recording page.



Device Off

Connection Toggle



Device Not Connected

Device On & Connected

# 3. Instructions for use

## 3.3 Charging the device



To charge the device use the supplied micro-usb cable and charge the device from a wall charger, laptop or other low-energy charging device that complies with the IEC 62368-1 standard.

If the App shows your battery percentage is below 15%, we recommend charging the device. A 60 minute charge is the maximum time needed to bring the device to 100%. A fully charged device will last up to 14 hours of continuous use.

### 3. Instructions for use



For step-by-step tutorials on the uses of the device.  
Please see the help section of the Spyras App.

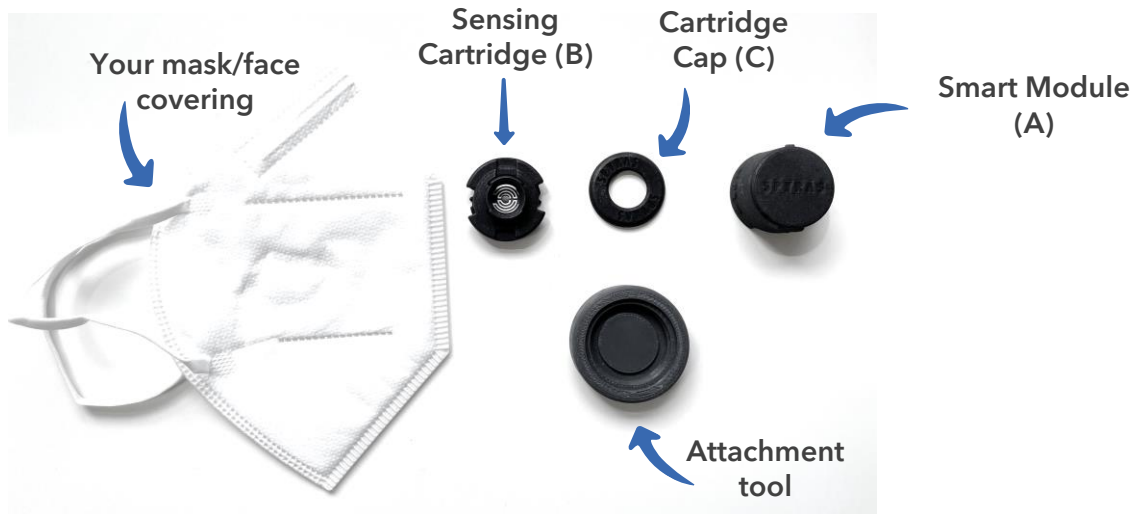


## 3. Instructions for use

### 3.4 Attaching the sensing cartridge



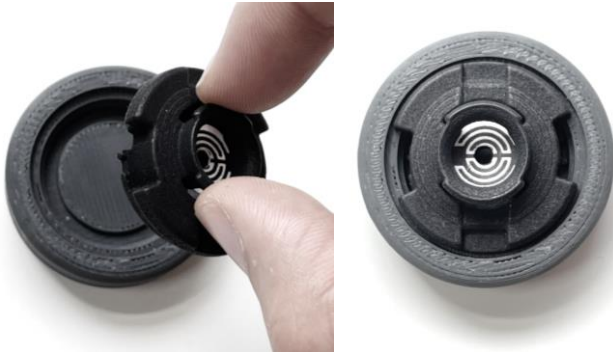
Make sure you have washed your hands thoroughly before assembling the smart mask adapter to your mask/face covering.



Apart from a face mask/face covering, the above items will be provided to you.

# 3. Instructions for use

## 3.4 Attaching the sensing cartridge



Take the cartridge attachment tool and put the sensing cartridge (B) into it. The windmill feature should be facing down and the sensor spiral facing up.



Place your mask/face covering on top of the sensing cartridge and tool.

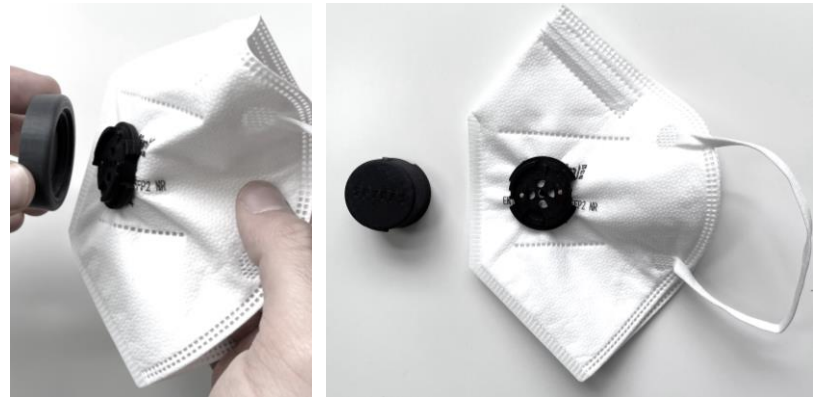
The outside layer of your mask/face covering should be facing down onto the sensing cartridge with the inside of your mask/face covering facing upwards.

# 3. Instructions for use

## 3.4 Attaching the sensing cartridge



Place the cartridge cap (C) on top of the inside of your mask/face covering above the sensing cartridge (B) and tool. Press down firmly until the cartridge is securely attached to your mask/face covering.

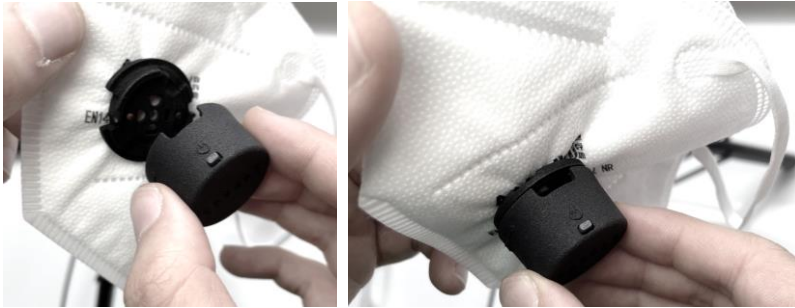


Turn over the mask/face covering with the now attached sensing cartridge. You should see the windmill feature.

Take the smart mask module and put it onto your cartridge

# 3. Instructions for use

## 3.4 Attaching the sensing cartridge



Hold your mask/face covering from the sensing cartridge and twist the module clockwise until it is securely clipped to the cartridge.

The vents of the module should line up with the vents of the sensing cartridge.



**Please note:**

The filtering efficiency of your mask/face covering will depend on your filter/mask filter specifications. Please look at the mask/face covering manufacturer details of the specific mask you have, to learn more about its filtering efficiency.

## 3. Instructions for use

### 3.5 Removing the sensing cartridge to wash mask

If your mask is washable, you can remove your sensing cartridge from your mask to wash your mask.

Your sensing cartridge has a life span of 40 hours and can be removed from a face mask and reattached after washing it.

Your app will notify you if your sensing cartridge has reached 40 hours of use. In that case, please dispose of the sensing cartridge and get a new one from Spyras.

You should wipe down your smart module (A), sensing cartridge (B) and cartridge cap (C) with an antibacterial wet wipe, prior to removing any of the parts.

To remove the sensing cartridge:

1. Untwist to remove the smart module (A) from the sensing cartridge (B).
2. Hold your mask/face covering firmly and hold the sensing cartridge (B) firmly and pull the mask until you feel the cartridge come away from the mask and cartridge cap (C).
3. You can now wash your mask/face covering
4. If the sensing cartridge has less than 40 hours of use, it can be reattached to the washed mask/face covering. Otherwise, a new sensing cartridge should be used.

## 3. Instructions for use

### 3.6 Removing the sensing cartridge to replace disposable mask/face covering

If your mask/face covering is disposable, you can remove your sensing cartridge from your mask to throw your mask/face covering.

Your sensing cartridge has a life span of 40 hours and can be removed from a face mask/face covering and reattached after getting a new one.

Your app will notify you if your sensing cartridge has reached 40 hours of use. In that case, please dispose of the sensing cartridge and get a new one from Spyras.

You should wipe down your smart module (A), sensing cartridge (B) and cartridge cap (C) with an antibacterial wet wipe, prior to removing any of the parts.

To remove the sensing cartridge:

1. Untwist to remove the smart module (A) from the sensing cartridge (B).
2. Hold your mask/face covering firmly and hold the sensing cartridge (B) firmly and pull the mask until you feel the cartridge come away from the mask and cartridge cap (C).
3. You can dispose of your old mask/face covering
4. If the sensing cartridge has less than 40 hours of use, it can be reattached to your fresh mask/face covering. Otherwise, a new sensing cartridge should be used.

# 3. Instructions for use

## 3.7 Disposal



**DO NOT DISPOSE** of the Spyras Smart Mask Adapter on your own. If you would like to dispose of the Spyras Smart Mask Adapter please contact the Spyras team through the Spyras app.

More In-depth guides on mask usage can be found within our mobile application “Spyras” on the Apple App Store.

# 4. Troubleshooting

## 4.1 Low power



If the Spyras Smart Mask Adapter is very low on power, it may not switch on or switch on quickly before switching off. If the device is extremely low on power, then when charged it may take up to 2 minutes before being able to switch on the device.



## 4. Troubleshooting

### 4.2 Smart module not connecting to app

If the smart module is not connecting to the app (the connection toggle in the recording page does not become green even after pressing the button for 2 seconds):

- Please toggle the connection toggle on and off and try again.
- If the smart module is still not connecting hold the smart module button down for 10 seconds and try again.
- If the smart module is still not connecting, try closing the app and opening it again, hold the button down for 10 seconds to reset the module, go to the recording page and press the button on the smart module again for 2 seconds.

# 4. Troubleshooting



## 4.3 Breathing rate missing

The Spyras Smart Mask Adapter continuously tracks your breathing rate while you are recording. If the breathing sensors on the Spyras Smart Mask Adapter have difficulty detecting a signal no breaths will be registered during a recording and your breathing signal will not be conveyed on the recording screen.

If your Spyras Smart Mask Adapter does not detect a breathing signal, try the following things:

- Wear the mask/face covering for up to a minute to allow for the breathing detection algorithms to settle and detect breaths.
- Make sure that the Spyras Smart Mask Adapter is correctly clipped to the mask/face covering and a connection has been made between the contacts on the smart module and sensing cartridge.
- Allow the mask/face covering to fully dry before trying again.
- Reposition the Spyras Smart Mask Adapter on your mask/face covering to be closer to your mouth.
- Switch the sending cartridge with another cartridge.

If you have tried the above points and still fail to register any breaths, please contact the Spyras team through the contact section of our mobile application.

## 5. Notes on the internal battery

The battery must not be replaced by the user in any circumstances, it is rechargeable and can be charged as per the instructions in our app.

This device uses a lithium-ion battery. If the following guidelines are not followed, the life of the lithium-ion battery in the device may be shortened or there is a risk of damage to the device, fire, chemical burn, electrolyte leakage and / or injury.

- **Do not** attempt to disassemble, puncture or damage the device or battery.
- **Do not** remove or try to remove the battery from the device.
- **Do not** expose the device to flames, explosions or other hazards.
- **Do not** use sharp objects to remove the battery.

## 6. Notes on use



- Keep all small parts of the Spyras Smart Mask Adapter away from children.
- This equipment is not suitable for use in locations where children are likely to be present.
- Spyras Smart Mask should be kept away from direct sunlight in a cool and dry place when not in use.
- Keep the Spyras Smart Mask Adapter away from strong magnetic fields, fire sources, chemicals, and other places of danger to avoid harm and product damage.
- Do not attempt to submerge or wash the Spyras Smart Mask Adapter in water.
- Do not use the Spyras Smart Mask Adapter while charging it.
- If the Spyras Smart Mask Adapter becomes warm or hot in use remove your mask and switch off the device

## 7. Product information



**Model:** SSMA01

**Weight:** 15.5g

**Color:** Black

**Shell Material:** PA2200 Polyamide 12 (Nylon 12)

**Battery Capacity and Type:** Lithium Polymer 70mAh battery

**Working Temperature:** -10°C -> 45°C

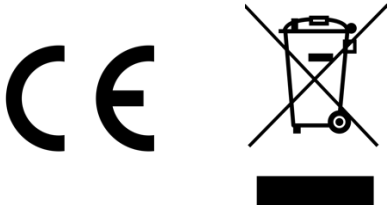
Wireless Bluetooth 5.0 BLE

**Frequency Band of Operation:** 2402-2480 MHz Bluetooth Low Energy radio

**Maximum radio-frequency power transmitted in the frequency band of Operation:** 4dBm

## 8. Declaration of conformity

Spyras Ltd declares that the “Spyras Smart Mask Adapter” is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: [www.spyras.com/legal](http://www.spyras.com/legal).





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[www.spyras.com](http://www.spyras.com)

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