WISE II

SUNMEDITEC INC.

www.sunmeditec.com

SUN MEDITEC
SUNMEDITEC INC.

WISE II

SMART STETHOSCOPE

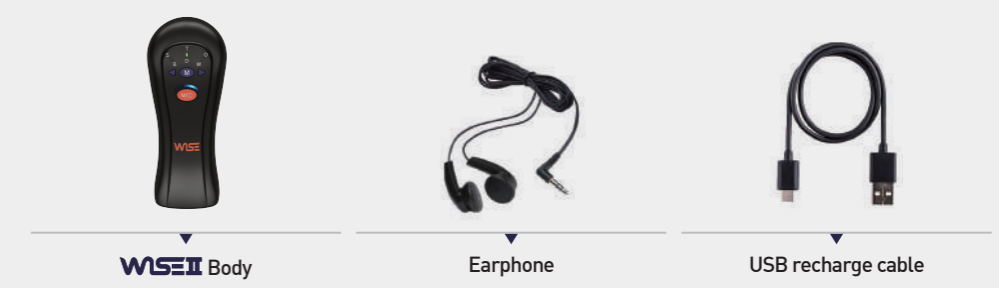Check your health with a WISE II
SMART STETHOSCOPE

Smart Stethoscope can
Listen, See, Analyzed and
Measure Body temperature and Oxygen saturation.
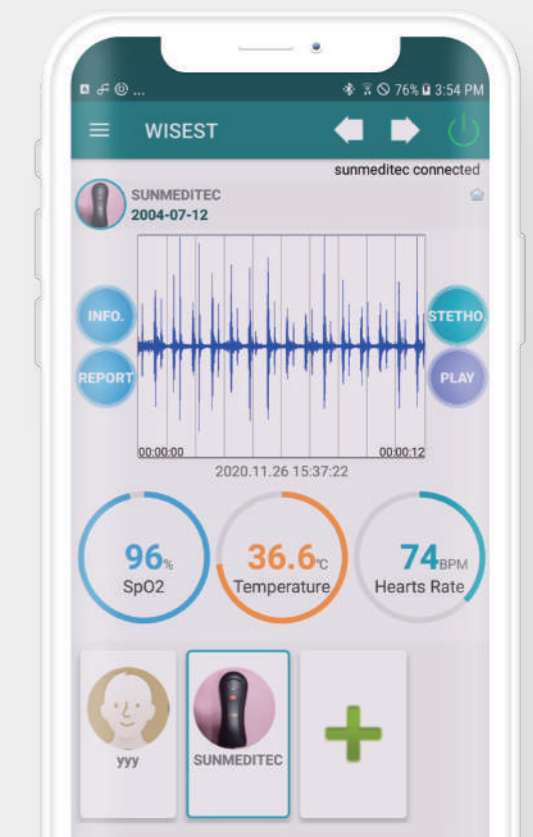
pat. KR10-0669531, KR10-1869881

Characteristics of
WISEⅡ

Smart Stethoscope displays heart, lung sound and pulse rate.

Measures Body temperature.

Measures Oxygen saturation.

Real time monitoring of stethoscopy, pulse rate, body temperature and oxygen saturation.

Analyzing of the heart and lung sound through waveform analysis and spectrogram.

Easy to use as basic information required for diagnosis.

Stores, reproduces, and outputs Waveform of stethoscope, pulse rate, Body temperature, and Oxygen saturation.

Continuous use with rechargeable battery.

2.4GHz Bluetooth communication for use on Smartphone and PC.

Smart Stethoscope remotely possible.

Check your health with a **WISEⅡ**
SMART STETHOSCOPE

WISEST

Smart Wireless Digital Stethoscope can listen, see, analyze and measure body temperature and oxygen saturation

Function mode LED
S : Stethoscope
T : Body temperature
O : Oxygen saturation

Volume button
+ High, – Low

Power, Charge, BT connection state window

Reset switch

Recharging battery port

Mode LED
Bell : Heart sound
Diaphragm : lung sound
Wide : Heart and lung sound

Mode of stethoscope (M) Button
Bell, Diaphragm, Wide selecting

Power ON/OFF, Mode selection (S,T,O) Button

Earphone Jack

Body temperature sensor

Oxygen saturation sensor

WISEⅡ
Products

WISEⅡ Body

Earphone

USB recharge cable

WISEST

sunmeditec connected

SUNMEDITEC
2004-07-12

INFO.   STETHO.

REPORT   PLAY

00:00:00   00:00:12

2020.11.26 15:37:22

96% SpO2   36.6℃ Temperature   74 BPM Hearts Rate

yyy   SUNMEDITEC   +

Product Name	**WISEⅡ** (Smart Stethoscope)
Model name	Life W20
Length	153×63×33mm
Power	DC 3.7V
Weight	120g
Power Consumption	107mW
Body Temperature Accuracy	36˚C±3%
Oxygen Saturation Accuracy	LEVEL ±3%

WISE II

Smart Stethoscope can
Listen, See, Analyzed and
Measure Body temperature and Oxygen saturation.

Check your health with a **WISE II**
SMART STETHOSCOPE

❶ Download the "WISEST" from the Play Store or Sunmeditec hompage(www.sunmeditec.com).
Execute the "WISEST" app. This is intro screen.

WISEST   sunmeditec connected

❷ If you click the table of contents bar(red circle button), the table of contents is displayed as shown below(the figure on the left). Select 'Setting' here to connect bluetooth and then select 'sunmeditec' as shown below(the figure on the right). Now bluetooth is on. (When connected, the blue LED will stop. If it blinks, it is not connected. And at the top of the app, you can see the words 'sunmeditec connected')
Please refer to the 'Help' in the table of contents.
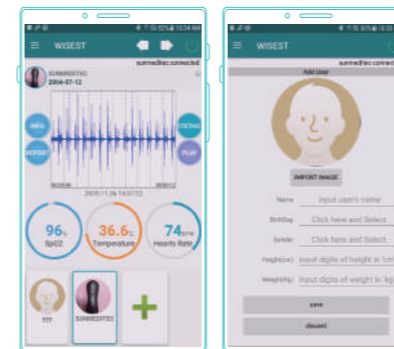
❸ The below is home screen(the figure on the left).
Click '+' button and enter the photo and information (the figure on the right).
- You can use a picture from the gallery or take a picture of yourself and adjust the picture size.
- Please enter your information(name, height, weight etc).
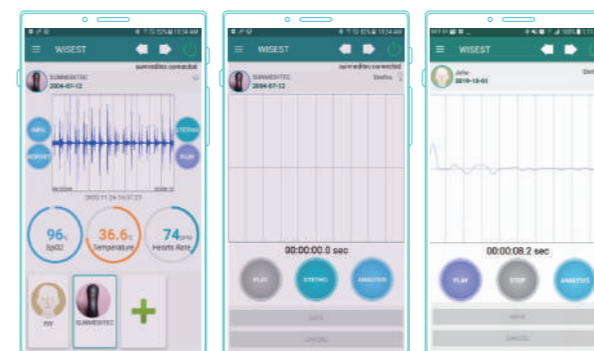
❹ There are four diagnostic functions on home screen : INFO(Information), REPORT, STETHO(stethoscope), PLAY. You can hear the heart sound in the middle box graph by press 'PLAY' button(if there is data stored).
- Click on 'STETHO' to stethoscope(the figure on the middle). And then you can monitor the waveform being auscultate (the figure on the right).
- For the good data, please don't talk while your heart and lung sounds are saved.
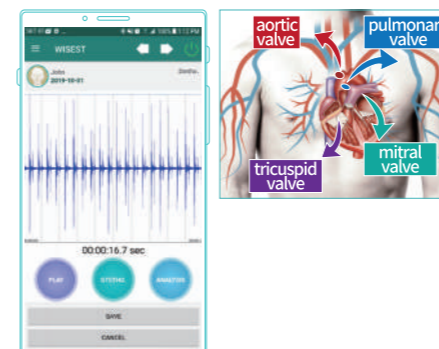
- Stethoscope data can be saved as long as you want. In this case, it is stored for about 16 seconds(generally, recording time is 10 seconds). Press save(the bar below the screen) to save the data. (When you listen to the heart sound, you can hear the heart sound by listening closely to the collection head of the stethoscope on the tricuspid valve and mitral valves in the right side picture)
- If you don't like the data, you can cancel(under bar) it and save it again.

01. Smart Stethoscope system

Function mode LED
S : Stethoscope
T : Body temperature
O : Oxygen saturation

Volume button
+ High, – Low

Power, Charge, BT connection state window

Reset switch

Recharging battery port

Mode LED
Bell : Heart sound
Diaphragm : lung sound
Wide : Heart and lung sound

Mode of stethoscope (M) Button
Bell, Diaphragm, Wide selecting

Power ON/OFF, Mode selection (S,T,O) Button

Earphone Jack

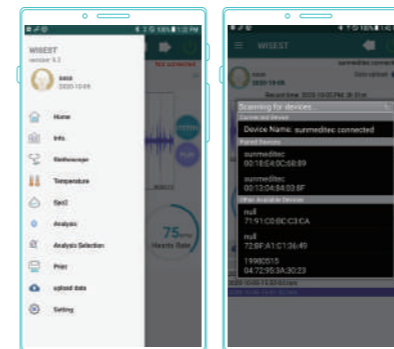**Body temperature sensor**

Oxygen saturation sensor

1. Familiarrize yourself with the function.
2. Power on/off button : the power is turned on by pressing once and off by pressing and holding for 3 seconds.
   - The power turns off automatically after 10 minutes of inactivity.
   - Each time you press this button, the mode is selected. S(Stethoscope), T(Body temperature), O(Oxygen saturation).
3. After selecting the stethoscope mode(S), you can select another mode. 'M' button is mode of B(Bell), D(Diaphragm), W(Bell and Diaphragm both).
   - Bell mode check the heart sound, Diaphragm mode check the lung sound and Wide mode check the heart and lung sounds at the same time.
   - The order can be changed. B→D→W→B
4. Volume consists of digital levels : '+' means high and '–' means low.
5. LED window displays the state of mode.
6. Recharging battery port : The charging connector can be used for either standard (USB 5pins A Type). The reset switch on the left(not normally used) resets when the smart stethoscope has a problem and moves the switch to the right and then moves to the left(original position) again.

- You can see the saved data list(the figure on the left).
  As shown in the figure on the left, select and drag the waveform of the stored data within about 2 or 3 columns of the gray line (all 10 spaces) of the graph and press the ¨+¨ button, the waveform is calculated and HR (heart rate) is automatically displayed(the figure on the middle and right).

- Waveforms and spectrogram(color) for auscultaion sound is displayed as below.
  Generally a spectrogram(color)of 500(Hz) or less means healthy.
  (For more information about the disease, visit the website www.sunmeditec.com → CS Center → Reference Room)

5 Press the "Temperature" on the screen, the screen for measuring body temperature opens(the figure on the right). Press the "RECORD START" and then measure temperature(To measure body temperature in hardware system, set the 'Mode switch' to 'T' mode). To measure body temperature, put a body temperature sensor (see photo below) in your near ear and measure body temperature. After measuring temperature, press the "UPDATE DATABASE" and then the data is saved. You can measure body temperature several times. The bar graph appears as shown below.

6 Press the "SpO2"(oxygen saturation) on the screen, The screen for measuring oxygen saturation(SpO2) opens. Press the "RECORD START" and then measures oxygen saturation. (To measure oxygen saturation in hardware system, set the 'Mode switch' to 'O"mode) After measuring oxygen saturation(Refer to the photo for the location of the hand, Prevent the sensor's light from leaking and hold lightly), press the "UPDATE DATABASE" and then the data is saved. You can measure oxygen saturation several times. The bar graph appears as shown below.

7 The final screen shows the result. You can print out the patient's information, stethoscope status, body temperature and oxygen saturation. And doctor's opinion can be written below the screen. The data report shows all diagnoses.

8 The output screen can be printed by printer, e-mail or SNS by click this icon

≡   WISEST   ⋘ 🗑 ◀ ⏻

9 This screen is a new app screen from version 9.2. Here, auscultation, body temperature, heart rate, and oxygen saturation data can be transmitted. The item above (No. 8) is to send the output screen, and this is to send the measured data, which is very necessary for remote medical treatment. If you send this data via email or SNS, the other party can receive and listen to this data(wave file).

10 Intended use : Health checking

11 Technical Specification

Product name	WISEⅡ (Smart Stethoscope)	Power consumption	107(mW)
Model name	LIFE W20	Body Temperature Accuracy	36°C±3(%)
Length	153×63×33(mm)	Oxygen Saturation Accuracy	LEVEL±3(%)
Weight	120g (including the battery)	Continuous using time	72 hours
Power	DC 3.7(V)	Battery recharging time	2 hours and 30 minutes

12 Equipment ratings

Temperature range	0°C ~ 40°C	- Be measured in correct status before use. - Check if the battery is recharged. - When an abnormality is found in the device, stop using it and ask us to inspect it. - If you disassemble, repair or modify this device at your own discretion, it may cause malfunction, and that will make After Sales Service unavaiable. - Do not expose it to direct sunlight. - Keep it in dry place. - Be careful not to be shocked, especially when it moves. - Do not keep it where chemicals and gas are emitted.
Relative humidity	30 ~ 70(%)R.H.	
Altitude	Up to 2,000(m)	
Pollution	2	Operation
Used place	Indoor use or Outdoor use	
Sound level	70(dBA)under	

13 Product Specification

Company Name	Sunmeditec co., Ltd.	Origin	Korea
Product Name	WISEⅡ (Smart Stethoscope)	Dimensions	153×63×33(mm)
Model Name	LIFE W20	Operation Voltage	DC 3.7(V)
Manufacturer	Sunmeditec co., Ltd.	Power Consumption	107(mW)

■ **Address :** Sunmeditec Co., Ltd. Manufactory. 3th floor, 23 Songcheon-ro, Deokjin-gu, Jeonju-Si, Jeollabuk-do, 54839, Korea
■ **Tel :** +82-63-2222-085   ■ **Fax :** +82-63-2222-086
■ **E-mail :** master@sunmeditec.com   ■ **Home page :** http//www.sunmeditec.com

【Product Warranty】

Product Name	WISEⅡ (Smart Stethoscope)	Warranty Period
Model Name	LIFE W20	
Serial Number		1 year

Purchase Date			
Customer	Name :	Tel:	Address :
Sales Store	Name :	Tel:	Address :
A/S Manager			

+ Please have the date of purchase written on the warranty card and keep it in a secure place as you have to present the card to get good service from us when asking for repair.
+ When this product goes out of order under the normal use of customer, we will repair it free of charge during the warranty period.
+ The damages prescribed below are NOT to be covered by warranty
  - Users faults by lack of care
  - Unauthorized electric currency connection defaults
  - Damages caused by natural disaster
  - Replacement to new parts
+ Please keep the warranty card securely as it is not reissued, and show us the warranty card when you ask for repair service.