SKEEPER Mozart

Manual Instruction

(Based on app. v2.0)

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Smartsound Corp.

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1   Introduction

1.1   Product outline

SKEEPER^{TM} Mozart is a precise heartbeat measuring device.
It is interlocked with free SKEEPER application to provide heart rate (BPM), a degree of regularity of heartbeat, wavy pattern of heartbeat, the sound of heartbeat and such and to easily and conveniently manage a cumulative record of user or family. You can also use this device by directly connecting wired earphones or headset to it.

It reads your heart and your family's hearts in three dimensions.
SKEEPER precisely analyzes the sound coming through heart with its patented technology and provides various measurement results. You can check the changes of your heart before and after walking, running, swimming or other activities in detail through this. You can also ordinarily manage the heart record according to change of family's life patterns such as sleeping condition, cycle of activity and relaxation, diet or fatigue.

It discovers the sound of embryo's heartbeat and of pets as well as the hidden perimetric sound.
You can hear the sound of embryo's heartbeat (more than 30 weeks, interindividual variance available) and of breathing of pets and the hidden perimetric sound such as trees and insects. You can naturally share emotions with your loving family, especially with infants, and give them experience education.

※ This device shall not be used for exercise, leisure, treatment or medical purpose.

> * Safety rules
> 1) Follow the instructions stated in the manual for safety.
> 2) Do not remodel, repair or disassemble the device. It may cause an unexpected electric shock or damage.
> Any problems occurred from a negligence of user are not to be included in the scope of compensation.
> 3) Do not use any kind of liquid to clean the device.
> 4) Do not use the device in a dangerous or an uproarious environment.

1.2   Product features

Transparent measurement results (Easy Display)

It shows digitized (quantization) and graphed every result of measurement of heartbeat so everyone can easily understand the measurement results.

Measurement time (Heart rate)	Heart rate per min. (BPM)	A degree of regularity of heartbeat (%)	(Real-time) Graph of wavy pattern of heartbeat
0:17(22) TIME (BEATS)	74 BPM	94% REGULARITY	

Safety in using

It does not adopt any input methods which can be harmful to human body such as ultrasonic waves or current devices but collects the sound signals (sound wave) of human body on a sound-collecting principle of MIC and processes them in the ways of specialized voice processing technology and of wireless transmission of SKEEPER. SKEEPER is perfectly reliable with its electromagnetic waves level harmless to human body even when a small child or the elderly and the infirm use it.

Providing a function of analysis through a special application

You can record and analyze a result of measurement with free SKEEPER application. And you can also effectively manage it with a diary function and even transmit the results by SNS or email (Android, iOS versions).

It applies "Health standard of heartbeat by age/gender" suggested by American Heart Association for user to directly and objectively compare the state of measured heart health.

With diary function, user can record the measurement results by various types (date, gender, age, conditions of measurement) and easily manage user's and family's cumulative records.

The measurement results can be shared with family, relatives or friends by email or various kinds of SNS.

Usability with wired/wireless connection

With SKEEPER Mozart, you can hear various sounds of human body, that is to say, the sound of embryo's heartbeat (Baby Mode), heartbeat (Heart Mode) and lung (Lung mode), by directly connecting earphone or headset to the main body and also hear the perimetric sound such as pets, trees and insects by changing modes. And it supports diverse functions described above with a specialized application after connecting to smart phone with Bluetooth.
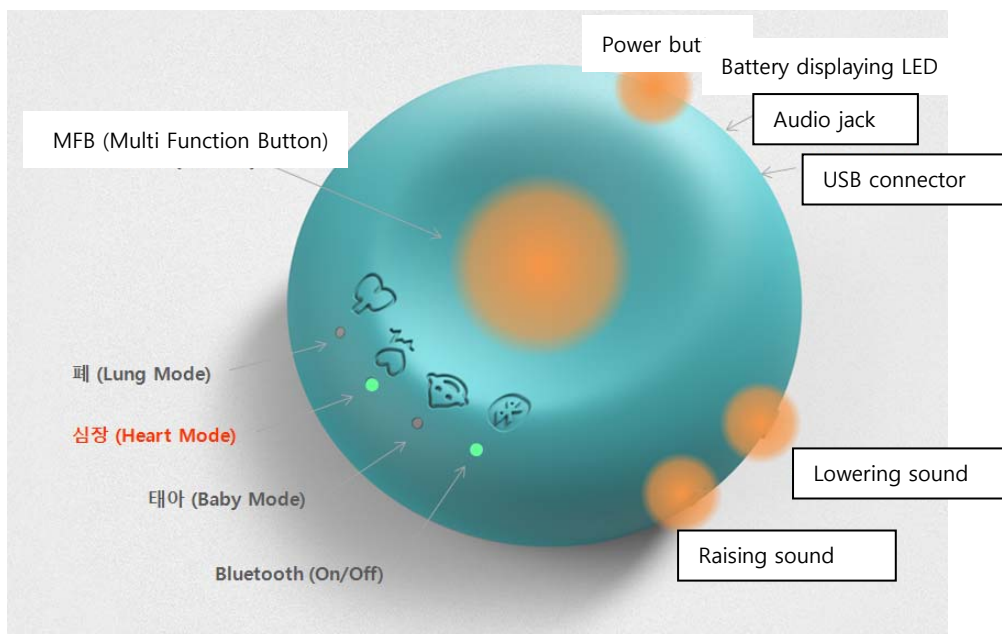
1.3   Components

SKEEPER Mozart main body	1 EA
USB charging cable	1 EA
Storage pouch	1 EA
Additional consumables (diaphragm)	2 EA
Manual instruction	1 EA

<Image description – For Baby Mode >

2   Preparation

2.1   Name of each part

2.2   Charging

It is advised to use the device after completely charging it before use or if it has not been in use for a long time in order to use the device rather longer.

1) Connect USB charging cable included in the product package to the charging terminal of the device.
2) Connect the other side of the cable to USB port to which the power is supplied.
3) Red LED goes on while charging and green LED goes on when the charging is completed.

* It takes approximately one hour and a half to charge the discharged device. The charging time differs by the battery remains of the device.
* Hours of continuous duty of the completely charged device are approximately eight hours.

Precautions:
* Use authenticated charger for the safe use of the device.
* If not using the device for a long time, charge it regularly (once every 6 months) for life of the battery embedded in the device.
* You cannot use the device while charging. Use it after removing the charging cable.

2.3   Turning the power on/off

You can turn on or off the power by pressing the power button. Bluetooth connection automatically starts when fist turning the power on (refer to Connecting Bluetooth).

1. Turning on the power: Press the 'Power button' for one second while the power is off. You can use the device when only the initial modes, Heart Mode LED and Bluetooth LED, are on after all four LED lights have gone on and off.

2. Turning off the power: Pressing the 'Power button' for a while during the power is on lets all four LED lights go on and the turns the power off.

2.4   Connecting Bluetooth

To use the smart phone application of the same name (SKEEPER Mozart), Bluetooth connection (pairing) of smart phone is required to be completed.

1. Initial Bluetooth connection

1) Activate Bluetooth function of smart phone. (Refer to the instructions of smart phone)

2) Pressing 'Multi Function Button (MFB)' of SKEEPER Mozart for one second makes Bluetooth LED flicker quickly and turns the phone into a searching mode by generating a short beep sound on the earphones

3) Execute Searching Bluetooth Equipment on the smart phone.

4) When the name of product, SKEEPER Mozart, appears on a result of Searching Bluetooth Equipment after a while, select it and then move to the next connection process (pairing)

5) Selecting Pairing Confirmation button or display of 'Connected' completes pairing.

6) You can enjoy various contents such as save/measure/share and many other functions on the SKEEPER Mozart application.

2. Reconnecting Bluetooth

1) The device automatically attempts to reconnect with the smart phone which has previously been connected to it when the power is on.

2) Bluetooth LED gets to flicker while such connection is proceeding and stops flickering when the connection is completed.

3) If it is not automatically connected, pressing 'Multi Function Button (MFB)' starts searching again.

* This device remembers maximum three smart phones (installed with the application) which have recently been connected and an attempt of reconnection repeats total 21 times in turn from the very last smart phone connected (for two minutes).

3   Usage of the main body

3.1   Basic functions

Functions	Operation methods
Hearing the sound	Connecting earphones to an audio jack allows you to hear the sound in real time through the main device. Using the special SKEEPER application saves and analyzes the measurement results and those results can be shared with others by SNS.
Initial pairing	This function is for an initial connection of Bluetooth equipment. At its initial operation, it automatically goes to pairing mode. Bluetooth LED quickly flickers at this time. When the relevant equipment (SKEEPER Mozart) has been searched on the smart phone, immediately click it to

	register. (Refer to 'Connecting Bluetooth' item for further details)
Pairing	It connects to a mobile equipment supporting Bluetooth. After the initial pairing, pressing Mode Change button for one second is to have LED quickly flicker. At this time, a short low to high beep sound generates in the earphones. (Refer to 'Connecting Bluetooth' item for further details)
Changing mode	There are total three modes of general (heart), lung and baby and the device starts with Heart Mode at the initial operation. Modes are to change in order of general (heart) -> lung -> baby and pressing MFB in the center of Mozart for a second changes mode.
Volume (Up/Down)	Pressing "+" button raises the volume and pressing "−" button lowers it. (When raising/lowering the volume, a short beep sound is generated in the earphones and when the volume is set to the max. or min., a short beep sound is to be generated twice)
Turning off the power	Press the power button for one second while the power is on.
Battery warning	Red battery LED goes on and a battery-warning sound is generated through ear jack.
Charging alarm	Charge the device using USB charging cable included in the package. Red LED is to go on while charging and green is to go on when the charging is completed, on battery display LED.

3.2   Measurement

3.2.1   Measuring General (Heart) Mode

General (Heart) Mode is for measuring the general cardiac sounds. Refer to Baby Mode for measuring the cardiac sounds of embryo.

1) Prepare the device and connect earphones or headset to it.
2) Set the device to General (Heart) Mode. (Refer to Basic functions)
3) Adhere the 'diaphragm' part of the device to the closest location to the heart by lightly pressing.
* Using the special application after connecting to smart phone with Bluetooth allows user to save, play, analyze and share the sound of heart. (Refer to How to use application)

3.2.2   Measuring Lung Mode

Lung Mode is for measuring the sound of breathing inside the body or of movement of internal organs

1) Prepare the device and connect earphones or headset to it.

2) Set the device to Lung Mode. (Refer to Basic functions)

3) Adhere the 'diaphragm' part of the device to any body part you want to hear by lightly pressing.

(Lung Mode does not support application function)

3.2.3 Measuring Baby Mode

Baby Mode is for mother bearing a baby for more than 20 weeks and her family to listen to the sound of baby's heartbeat.

1) Prepare the device and connect earphones or headset to it.
2) Set the device to Baby Mode. (Refer to Basic functions)
3) Place the 'diaphragm' part of the device on the bare abdomen of mother.
* Since the sound of baby's heartbeat is extremely small, a precise measurement is only allowed in a quiet place.
* Do not grab the device with hand when measuring Baby Mode but place it on the bare skin (Grabbing the device with hand might interrupt the vibration of baby's minute heartbeat)

4 How to use application

4.1 Installation of application

You can download the application from android/iOS market or from the company's website.
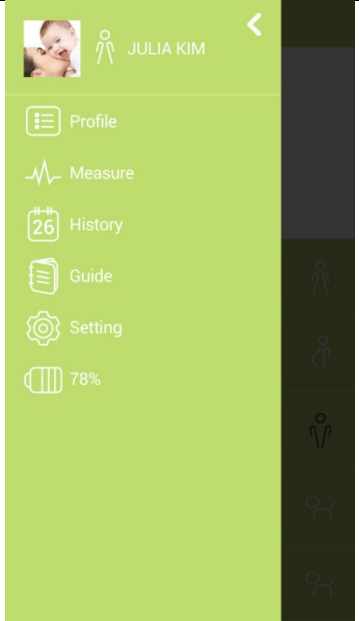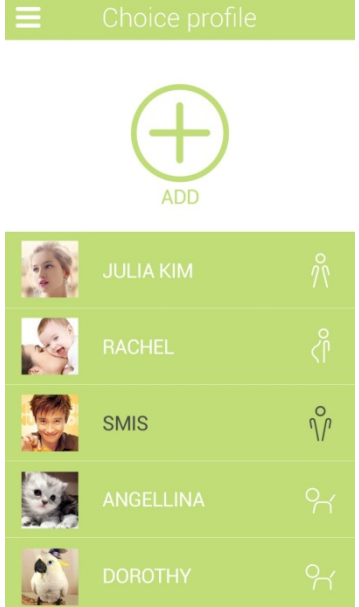
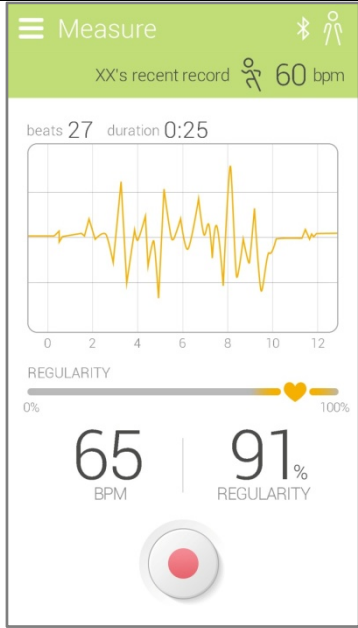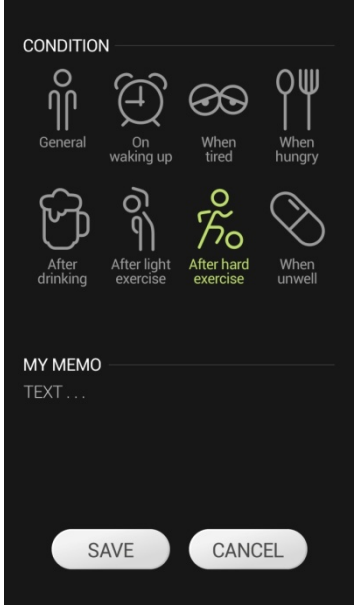(The application can be updated without any prior notice.)

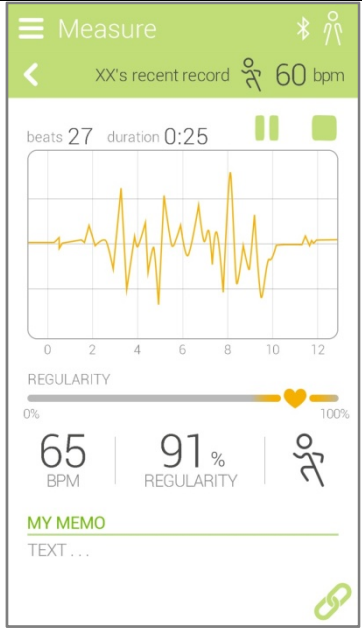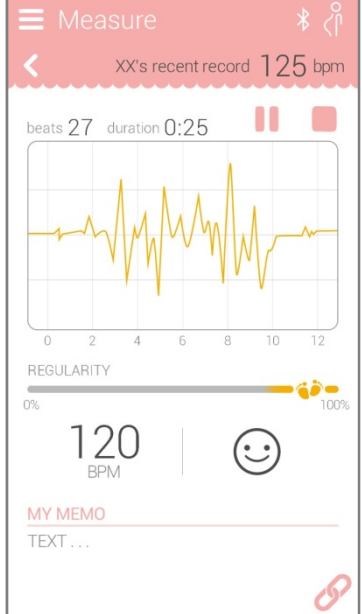1) Search "SKEEPER Mozart" on the application market (Play Store, App Store) of smart phone.
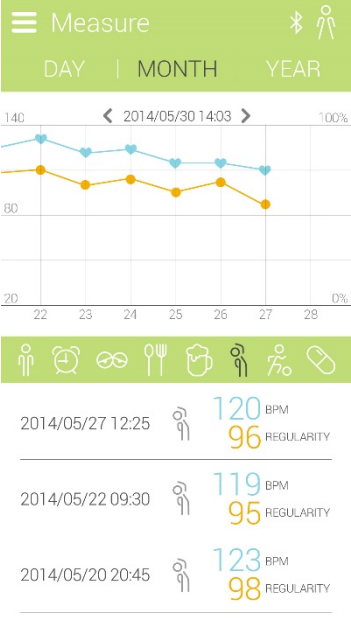2) Download and install the application by selecting 'Install' on the introducing page.

4.2 Application functions

Functions	Screen	Usage

Side menu		* You can use side menu by clicking Menu button located on the left top side of each screen. * With each menu, you can use Profile, Measure, History, Guide, and Setting functions and check battery remains of hardware of SKEEPER Mozart.
Managing profile		* You can create and manage user profile on the main screen. * You can measure and analyze the profile and mange the records according to the information on profile creation. * Matters to enter for profile: Picture, name, date of birth, mode (male, female, baby, animal)

Measurement		* Conduct a measurement by clicking 'Record' button while it is connected to Mozart by Bluetooth. * After the time set (one minute) has passed or pressing 'Stop' button, recording is to stop and the screen moves to Save screen. * Screen composition: 1) The most recent measurement result appears on the top. 2) Total heart rate and measurement time appear on a graph. 3) BPM and Regularity are displayed under the graph in real time.
Saving the measurement		* After the measurement, it automatically goes to Save Setting screen. * You can select the state at the time of measurement and enter a memo. * A state is no selectable for Baby Mode and Animal Mode.

Measurement result (General)		* A measurement result of General Mode shows BPM, Regularity, state and memo. * You can play the sound measure or share it by SNS.
Measurement result (Baby)		* A measurement result of Baby Mode shows BPM, state and memo. * A state of Baby Mode is not to be entered when saving but automatically shows the face of baby in three different states (smiling/normal/frowning faces) according to the accuracy of the measurement result.

Measurement result (Animal)		* A measurement result of Animal Mode shows BPM, kinds of animal and memo. * A kind of animal can be selected when saving measurement result.
History		* It shows the aligned measurement results depending on date and condition of saving. * Selecting Period shows a tendency graph during the relevant period and a list of measurement results. (Filtering by saving option in the center of the screen is available) * Selecting the list of measurement results by touching changes the screen to each measurement result screen.

5 Product details

Wireless Connection

Bluetooth: BT3.0 + eSCO + EDR

Profile: HFP

Basic Specification

Size(W x D x H):   62mm x 62mm x 35mm, 40Ø

Weight: 53g

Ports: Micro USB, 3.5Ø Audio Jack

Sensor Type:	ECM Single
Materials(Upper):	Rubber
Colors:	Baby Pink, Baby Blue, Violet, Hot Pink, Green, Gold

Battery

Power Source:	Battery
Battery Type:	Built-in rechargeable Lithium-Polyer battery
Recharging Time:	About 80Min. by Micro USB Cable
Hours of battery use:	About 8 Hours (measurement)

Compatibility

Android Models:	Supporting Android 4.1.2 version or advanced
iPhone Models:	Supporting iPhone 4, 4S, 5, 5C, 5S, iPad, iPad mini

※ It may not work smoothly on some android-based mobile phones.

6   Inquiries

Customers having any problems occurred during the use of the product or inquiries on the product can get various information as well as services from www.ismartsound.com. A breakdown of the product occurred within three months of normal use can be subject to free exchange service.

(However, a breakdown due to user's negligence or arbitrary disassembly is not to be included in the scope of compensation.)

FCC Information to User

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 cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is con-nected.

• Consult the dealer or an experienced radio/TV technician for help.

Caution

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Information : This device complies with Part 15 of the FCC Rules. 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 undesired operation

IMPORTANT NOTE:

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.