

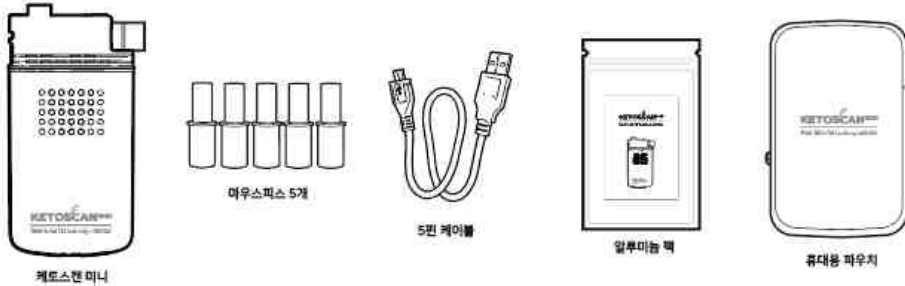
한글 (총 5페이지)

KETOSCAN^{MINI}

Real-time fat burning monitor

사용 설명서

제품 구성



사용 전 주의 사항

1. 본 제품은 300회 측정 도말 시 기기작동이 정지됩니다.
기기작동이 정지된 경우, SENTECH GMI 서비스센터에 연락하여 센서교체 및 정확도 교정을 받으세요.
2. 기기세척 금지. 특히 알코올로 세척할 경우, 기기 고장의 원인이 됩니다.
3. 최근 술을 마셨거나 숙취가 남아있을 경우 측정값에 영향을 줄 수 있습니다.
4. 측정 전 30분 내에 커피, 주스 등 물 이외의 음료 및 음식, 양치 그리고 담배나 구강청결제를 사용했을 경우 측정값에 영향을 줄 수 있습니다.
5. 장기간, 지속적으로 60PPM 이상의 측정결과를 보일 경우 전문가와 상의하기 바랍니다.
6. 본 제품은 300회 측정 또는 1년에 한번 센서 교체 및 정확도 교정을 필요로 합니다.

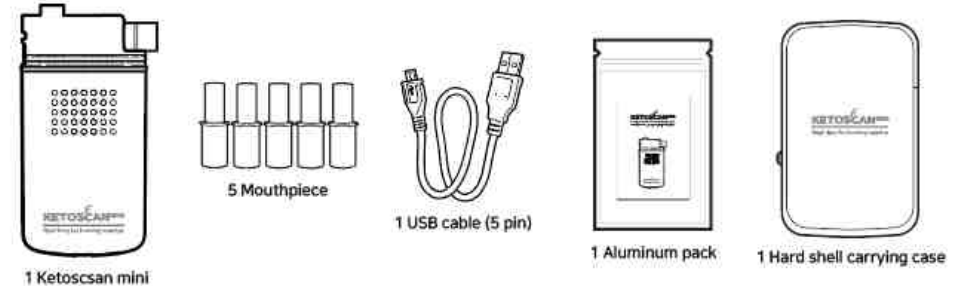
영어 (총 6페이지)

KETOSCAN^{MINI}

Real-time fat burning monitor

USER MANUAL

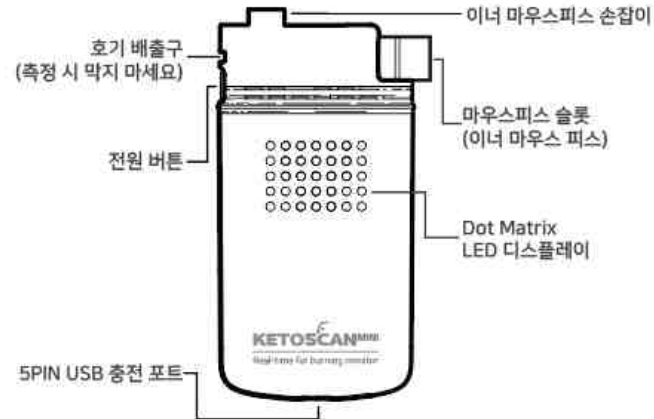
COMPONENTS



IMPORTANT!

1. Device will be locked after 300 tests.
If your device is locked, please contact local supplier or manufacturer.
2. Do not use alcohol to clean the device. It will cause device malfunction.
3. The following may affect the measurement results;
 - Consumption of alcohol in the last 24 hours.
 - Drinking coffee, juice or other beverage, mouth spray, brushing teeth, smoking 30 minutes before measuring.
4. If measurement result shows more than 60PPM continually for a long-term, consult with an expert.
5. Device required to be recalibrated or replace sensor every 300 tests or 12 months (whichever comes first)

제품 설명



제품 디스플레이 메시지

호흡 시료부족
분석을 위한 호흡생물이 부족하여 표시되는 메시지입니다.
잠시 기다리시면 자동으로 측정모드로 재진입 합니다.
길게 3초간 마우스피스를 통해 호흡을 붙어 넣어줍니다.

배터리 잔량 부족 알림
제품 내 전원이 부족하므로
USB를 통한 충전을 하시기 바랍니다.

제품 충전 중(점멸)
USB를 통한 충전이 진행 중일 경우 표시되는 메시지입니다.

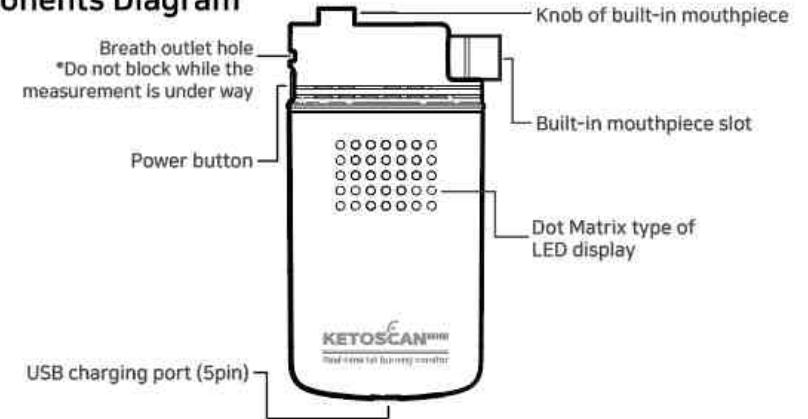
제품 충전 완료
USB를 통한 충전이 완료될 경우 표시되는 메시지입니다.

교정 서비스 알림
교정 서비스 필요함을 알리는 메시지입니다.
제품의 정확도 유지를 위한 교정 작업이 필요한 상태로
더 이상의 사용은 불가하므로
SENTECH GMI 서비스센터에 연락을 주시기 바랍니다.

센서 에러 알림
제품내 센서에 이상이 생길 시에 표시되는 에러 메시지입니다.
제품 구매처 또는
SENTECH GMI 서비스센터에 연락을 주시기 바랍니다.

블루투스 페어링 모드
제품과 모바일 어플리케이션 KETOSCAN이
블루투스 통신 인동원리시 제품에 표시되는 메시지입니다.

Components Diagram



Function Displays

Breath sampling error
It is caused by weak or unstable breath sampling.
Wait few seconds until device is ready again
then blow through a mouthpiece about 3 seconds.

Low battery warning
Charge the device using the USB cable.

Battery charging (Blinking)
It will take less than 1 hour to charge fully.

Battery charging is finished

Re-calibration required (Device blocked to operate)
Device has measured more than 300 tests and
re-calibration is required to maintain an accurate
and sustainable operation.
Please contact local supplier or manufacturer.

Sensor error
It is caused by a sensor defect.
Please contact local supplier or manufacturer.

Bluetooth® mode
Device is connected with mobile app, KETOCAN

동작 방법

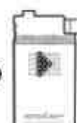
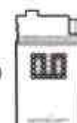
측정 시 워밍업 시간이 필요하며 숫자로 카운트 다운 됩니다.
워밍업 종료 후 자가진단 여부를 자동으로 판단하여 실행합니다.

- ①  마우스피스를 제품에 결합합니다.
(마우스피스 없을 경우 이너 마우스피스 사용가능)
- ②  제품의 왼쪽에 위치한 전원버튼을 2초 정도 누릅니다.
- ③  센서 안정화가 시작됩니다.
*안정화 시간은 숫자로 카운트 다운 됩니다.
- ④  측정 대기 상태입니다.
제품이 호흡시료를 받아들일 준비가 되었습니다.
*60초 이내에 측정이 없을 시 자동전원OFF 됩니다.
- ⑤  마우스피스를 통해 호흡을 3초간 불어넣습니다.
측정이 시작되면 부저음이 울리기 시작합니다.
부저음이 두 번 울릴 때 까지 공선 불빛이
부드럽게 호흡이 끊기지 않도록 불어넣습니다.
* 측정 시
전원버튼 위에 위치한 호흡배출구를 막지 않도록 주의 합니다.
- ⑥  측정이 완료되었으며 호흡시료를 분석 중입니다.
- ⑦  케토스캔 미니는 필요 시 자가진단 모드를 자동으로 실행합니다.
> 자가진단 모드 동작 시 기기의 정상 작동이 확인되면
OK로 표시하고, 자동으로 측정모드로 진입합니다.
측정모드 시 워밍업 시간이 카운트 다운 됩니다.
> 자가진단 모드가 동작하지 않을 경우엔 글바로 측정결과가 표시됩니다.
- ⑧  측정결과를 확인 합니다.
15~20초간 결과표시 후 자동전원 OFF 됩니다.
* 0.0~9.9ppm: 소수점 한 자리까지 표시.
** 10ppm 이상: 소수점 자리 표시 안함.

** 측정 시 부저음은 기기와 어플 연동 후, 환경설정 -> 볼륨 에서 조절이 가능합니다.

How to use

Device needs warm up time to be ready to blow and will determine automatically whether self-diagnosis mode is required or not.

- ①  Put the mouthpiece on Ketoscan mini
(Built-in mouthpiece is usable when you do not have an extra mouthpiece)
- ②  Press and hold the power button for 2 seconds.
Power button is located on the upper left side.
- ③  Warming up will be started and it takes about 60 seconds.
- ④  Device is ready for use.
If there is no operation, device will be turned off automatically after 60 seconds.
- ⑤  Take a deep breath and blow into the mouthpiece steadily and continuously for 3 seconds until the beep sounds twice. If your breath sample is not strong enough or unstable, "X" (sampling error message) will be displayed.
*Do not block the air outlet hole while the breath sampling is being finished
- ⑥  Breath sampling is finished and it's being analyzed.
- ⑦  If required, Self-diagnosis will be operated automatically and it will be shown "OK" on the display. Then device goes to measurement mode automatically and user will need to blow again to see a measurement result.
If device does not require self-diagnosis, measurement result will be displayed.
- ⑧  Check the measurement result.
Figure (PPM) will be shown for 15~20 seconds then device will be turned off automatically.
*0.0~9.9ppm: Displaying until one decimal point
Above 10ppm: No displaying one decimal point

** Beep sound level of Ketoscan mini is adjustable on the mobile App.

아세톤 농도가 의미하는 몸의 상태

아세톤 (ppm)	등급	설명
0.0 ~ 1.0	Level 0	체지방 분해가 없거나 매우 미약한 상태임을 의미하며, 식단조절과 운동이 필요합니다.
1.1 ~ 1.9	Level 1	
2.0 ~ 2.9	Level 2	미약한 케토시스 상태로 평균적으로 시간당 약 2g 정도의 느린 속도로 체지방이 분해되고 있는 상태입니다.
3.0 ~ 3.9	Level 3	
4.0 ~ 4.9	Level 4	
5.0 ~ 5.9	Level 5	적정한 케토시스 상태로 평균적으로 시간당 약 5g 정도의 속도로 체지방이 분해되고 있는 상태입니다.
6.0 ~ 6.9	Level 6	
7.0 ~ 7.9	Level 7	
8.0 ~ 8.9	Level 8	
9.0 ~ 9.9	Level 9	최대 강도의 케토시스 상태로 평균적으로 시간당 약 10g 정도의 속도로 체지방이 분해되고 있는 상태입니다.
10 ~ 40	Level 10	
41 ~ 60	Level Caution	과도한 케토시스 상태입니다. 이 상태가 장기적으로 지속될 경우 몸에 무리가 갈 수 있습니다.
60 이상	Level Danger	케토산증 (ketoacidosis) 상태로 심할 경우 실신 및 생명의 위험이 있을 수 있습니다. 전문가와의 상담이 필요합니다.

제품 사양

센 서 타 입	High resolution acetone gas sensor (고분해능 아세톤 가스 센서)	제품 사이즈	54mm X 110mm X 18.5mm
표 시 단 위	PPM (Parts Per Million)	제 품 무 게	74g
측 정 범 위	0.0 ~99PPM	보 관 온 도	5 ℃ ~ 50 ℃
오 차 범 위	10%	동 작 온 도	10 ℃ ~ 40 ℃
워밍업 시간	60초 이내	교 정 주 기	300회 (300회 미만이라도 구입 후 1년 경과 시 센서 교체 및 교정 권장)
분 석 시 간	5초 이내		** 자가진단 횟수는 사용 횟수에 포함 안 됨
전 원	재충전가능한 리튬폴리머 3.7V 500mAh	완충 후	
충 전	USB port 5V 1000mA 이상	사용가능 횟수	50회 이상
마우스피스	일회용 마우스피스 MP1000 또는 이너마우스피스	인 중	미국 FDA 의료기기 인증 Class 1

The body's state according to breath acetone concentration

Breath Acetone Concentration (PPM)	Level	Effects
0.0 ~ 1.0	Level 0	Body fat is not burning at all or very small amount is burning now. It is required more intensive diet, exercise and controlling what you eat.
1.1 ~ 1.9	Level 1	
2.0 ~ 2.9	Level 2	It is in its early stage of body fat burning or low level of ketosis state. Body fat is slowly burning in average 0.07 oz (2 grams) per hour.
3.0 ~ 3.9	Level 3	
4.0 ~ 4.9	Level 4	
5.0 ~ 5.9	Level 5	It is the proper level of body fat burning or ketosis state. Body fat is burning in average 0.17 oz (5 grams) per hour.
6.0 ~ 6.9	Level 6	
7.0 ~ 7.9	Level 7	
8.0 ~ 8.9	Level 8	
9.0 ~ 9.9	Level 9	It is the best level of body fat burning or ketosis state. Body fat is burning in average 0.35 oz (10 grams) per hour.
10 ~ 40	Level 10	
41 ~ 60	Level Caution	It is the excessive level of body fat burning or ketosis state. If this state persists, it can be hard on the body.
61~	Level Danger	It is ketoacidosis state. And it will be a serious risk to health. Consult a health professional.

Product Specifications

Type of sensor	High resolution acetone gas sensor	Size	2.12x4.33x0.72 inches /54x110x18.5mm
Measurement unit	PPM (Parts Per Million)	Weight	0.16lbs / 74g
Display range	0.0 ~ 99PPM	Storage	41~122ℱ (5~50℃)
Accuracy	10%	Working temperature	50~104ℱ (10~40℃)
Analyzing time	In 5 seconds	Calibration Interval	Every 300 measurements (even less than 300 measurements but more than 1 year since purchased, it is recommended recalibration or replacing sensor)
Power supply	Built-in rechargeable lithium-polymer battery		*Self-diagnosis test does not counting
Power charging	USB port 5V 1000mA or more	Battery life	More than 50 measurements
Mouthpiece	Disposable mouthpiece or built-in mouthpiece	Approval	FDA Class I

교정 및 사후 서비스 연락처



(주)센텍지엠아이

TEL. 070-5222-7831

FAX. 031-8071-4411

카카오톡 ID : ketoscan

(10880) 경기도 파주시 지목로 75번길 21-6

품질보증

- 본 제품의 보증기간은 제품 출고일을 기준으로 1년입니다.
- 단, 품질보증기간 1년 이내에 300회 측정으로 인한 센서교체 및 교정서비스는 유상으로 처리됩니다.
- 본 제품의 보증기간 내 사용자의 부주의로 인한 제품의 수리는 유상으로 처리됩니다.

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.

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 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 or more 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 connected.

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

Modifications not expressly approved by the manufacturer may void the user's authority to operate the equipment under FCC rules.



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Modifications not expressly approved by the manufacturer may void the user's authority to operate the equipment under FCC rules.

Limited ONE year warranty

Warranty coverage

Sentech USA INC warrants this product against defects in materials and workmanship under normal use for a period of ONE

(1) YEAR from the date of retail purchase by the original end-user purchaser ("Warranty Period"). Except as provided in the preceding sentence or applicable law, Sentech USA INC provides this product "as is". If a defect arises and a valid claim is received by Sentech USA INC within the Warranty Period, at its option, Sentech USA INC will either (1) repair the product,

(2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) refund the purchase price of the product. When a refund is given, the product for which the refund is provided must be returned to Sentech USA INC and becomes Sentech USA INC' property.

This warranty is limited to the original end-user purchaser and is not transferable to, or enforceable by, any subsequent owner.

Disclaimers

Sentech USA INC makes no warranties, express or implied, as to the ability of this product to determine whether, or the extent to which, a test subject's mental or physical functioning, or judgment, may be impaired by blood alcohol including whether the test subject is intoxicated under any definition of that word. Sentech USA INC expressly disclaims any liability for direct, indirect, incidental, special, or consequential damages of any nature under any legal theory. Any act or failure to act based on a reading from this product shall be at the test subject's or user's own risk. Sentech USA INC assumes no responsibility for consequences to or of test subjects who use this product and later are shown to have been under the influence of alcohol or to have had their judgment or any mental or bodily function impaired by alcohol. Correlation between breath alcohol content and blood alcohol concentration depends on many variables, including environmental factors (such as air quality, wind, humidity, temperature, etc.) and health conditions of the test subject. A low BAC reading does not mean that the test subject's physical or mental performance or judgment (including reaction times) can respond to an emergency. The concentration of alcohol in the blood of a test subject cannot be exactly determined by using a breath alcohol screening product. Sentech USA INC does not warrant that the operation of the product will be error-free. Sentech USA INC is not responsible for any consequences arising from failure to follow instructions or relating to the product's use. This warranty does not apply: (a) to consequences caused by accident, abuse, tampering, misuse, flood, fire, earthquake or other external causes; (b) to consequences caused by operating the product outside the permitted or intended uses described by Sentech USA INC; (c) to consequences caused by service performed by anyone who is not a representative of Sentech USA INC or Sentech USA INC Authorized Service Provider; or (d) to a product or part that has been modified to alter functionality or capability without the written permission of Sentech USA INC.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. AS PERMITTED BY APPLICABLE LAW, SENTECH USA INC SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF SENTECH USA INC CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION TO THE DURATION OF THE EXPRESS WARRANTY AND TO THE REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY SENTECH USA INC IN ITS SOLE DISCRETION.

No Sentech USA INC reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, SENTECH USA INC IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER ANY LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE OR INCOME; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS FROM A CONTRACT); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL, OR LOSS OF REPUTATION.

Some countries, states and provinces do not allow the exclusion or limitation of incidental or consequential damages or allow limitations on how long an implied warranty or condition may last, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by country, state or province. This Limited Warranty is governed by and construed under the laws of the country in which the product purchase took place.

For warranty & recalibration service
Please contact;

SENTECH USA INC
20280 S.Vermont Ave. #200
Torrance, CA 90502
Tel: 310-526-8231
www.sentech-usa.com
service@sentech-usa.com

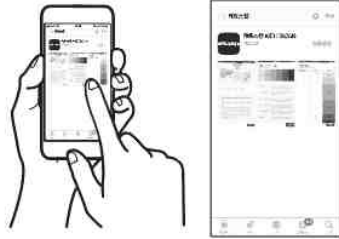


케토스캔 미니 어플 사용 설명서

KETOSCAN MINI 시작하기

KETOSCAN^{mini}
Real-time fat burning monitor

1

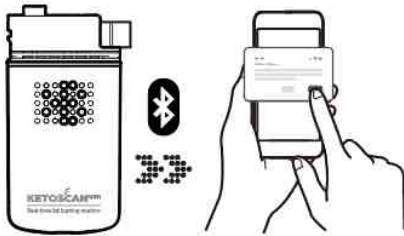


어플 다운로드 및 로그인

App Store 또는 Google Play Store에서
'케토스캔' 'Ketoscan' 검색, 다운로드 후 회원가입

** 회원가입 로그인 시 휴대폰 기기변경 시에도
측정 데이터가 저장되어 있어
지속적으로 관리가 가능합니다.

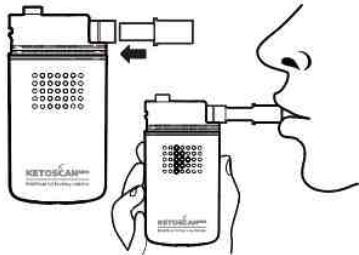
2



블루투스 연결하기

어플을 먼저 실행하고 기기 전원을 켜면
최초 1회 "장치목록" 을 통해 수동으로
페어링 해야 하며 그 이후엔 자동으로 페어링 됩니다.

3



마우스피스 연결 및 본 측정 시작

마우스피스 슬롯을 당겨 일회용 마우스피스를
끼운 후, 자가진단모드 또는 측정모드가 시작됩니다.

Pairing the device with the KETOSCAN mobile APP.

KETOSCAN^{mini}
Real-time fat burning monitor

1



App. Download

Download mobile app.
"KETOSCAN" available at
App Store & Google play store.

*Creating an account will be required
to keep the data storage online.

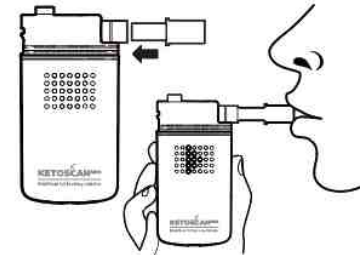
2



Bluetooth® pairing mode

Open the mobile App.
first then turn on the device.
Ketoscan mini will be available
for pairing on the device list of App.
Once Bluetooth® pairing is completed,
it will be paired automatically in the future.

3



Connecting mouthpiece & Starting measurement

Put the mouthpiece into the built-in
mouthpiece slot and follow
the instructions on the mobile App.

** 블루투스 연결이 안될 때

- 1) 케토스캔 미니 전원을 켜고 어플에서 장치목록 검색 또는
- 2) 기기의 전원을 끄고 (스위치 2초 이상 누르면 OFF 표시) 어플 강제종료 후 재실행



** 자가진단모드

안정화 시간 이후 센서 상태를 확인하고 필요성에 따라 자동으로 자가진단모드 혹은 측정모드로 진입합니다.

**기기 수령 후 최초 측정은 반드시 어플에서 실행하세요.
그 이후에는 기기 단독으로 사용하셔도 되지만,
단독 사용 시에는 측정 데이터가 저장되지 않습니다.



** What if the Bluetooth® paring is not available?

- 1) Turn on the device and search it on device list of App.
- 2) Or turn off the device and App. forcibly then try again.



*Self-diagnosis mode

Device is checking a sensor status by itself.
and determines whether self-diagnosis mode is required or not.

Device is required to pair with a mobile App. Ketoscan to memorize & track your data.