



User Manual for Intelligent

Intelligent Sleep Tracker Ring W190

Intended Use

This product is used for detecting and managing sleep health data. By continuously monitoring the user's sleep process and analyzing the data, it helps users manage their health status and choose a healthy lifestyle.

This product is intended for general health applications and encourages healthy activities.

This product is not a medical device, and the health data, results, and suggestions provided are for reference only and should not be used as a basis for diagnosis and treatment.

Do not operate or use this device without reading and fully understanding these instructions.

Product Description

The **iSleepRing** is used to continuously

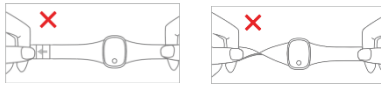
monitor the user's physiological indicators such as blood oxygen saturation, heart rate, respiratory rate, and body movements during sleep. The data monitored during sleep is synchronized to the app, where users can further view various indicators reflecting sleep health status, such as hypoxic burden and oxygen desaturation index. Comfortable wearing reduces the impact of continuous monitoring on nighttime sleep. Comprehensive data analysis and key event annotations help users understand the changes in sleep health data and the impact of events, encouraging the choice of a healthy lifestyle.

1. Warnings and Precautions

- Ensure that the device is in normal working condition and operating environment when using it.
- Do not use this device during MRI or CT scans. Stay away from devices that generate strong electric or magnetic fields, as they may interfere with the device's normal operation or affect the

surrounding environment.

- This device does not have an alarm function. It is not intended for arrhythmia analysis.
- If you experience symptoms that may indicate an acute illness, consult your doctor immediately. Do not use this device for self-diagnosis or self-treatment.
- The magnetic strap of this device produces a certain magnetic field. If the user is using medical devices that may be affected by magnetic force (such as pacemakers or cardiac stents), consult a doctor to confirm whether it can be used, ensuring that it does not interfere with or harm these magnetic devices when used.
- Use only the cables and accessories specified in this manual.
- The device contains a lithium battery. Do not dismantle, impact, squeeze, or expose it to fire. Do not use the device in flammable gas. Do not use the device in high-temperature environments or if the battery gets wet.
- Do not immerse the device in water or other liquids. Do not clean the device with acetone or other volatile solvents. Do not clean the device in high-temperature, high-pressure, or gas sterilization environments.
- Do not use the device in an oxygen-enriched environment or in environments with flammable or explosive substances.
- Keep the device out of reach of children or infants to avoid accidental ingestion.
- This product is suitable for people weighing more than 30 kg.
- Do not tighten the strap too tightly on the finger to avoid finger ischemia or injury. Check the wearing position, and if there are adverse skin changes or discomfort, remove the device from the finger promptly.
- Do not exert excessive force on the sensor component by squeezing or pulling.

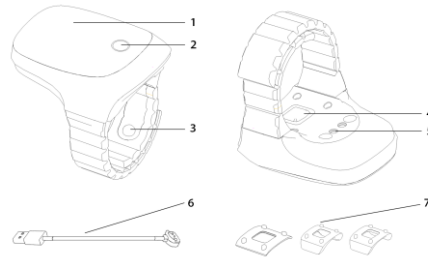


Do not pull or twist the strap.

- When the blood flow perfusion at the device's wearing position is too low or during physical activity, the device may not measure or may have larger errors.
- If the device's measurement signal is incomplete at the wearing position, parameters such as blood oxygen saturation and pulse rate will display "--".
- Avoid using sharp objects to operate the device.
- Do not operate the device if it is damp due to condensation or spillage. Avoid using the device immediately after moving it from a cold environment to a warm and humid location.
- Dispose of the device and its accessories properly according to local regulations when they reach the end of their service life.

2. Using the Intelligent Sleep Tracker Ring

2.1 Product structure and composition



	Name	Description
1	Display screen	Display measurement results and device status.
2	Touch button	Used for power on and waking up the display screen.
3	Transmitter module	Emits specified measurement signal during measurement.
4	Receiver sensor	Receives signals from the transmitter module.
5	Charging terminal	Used to charge the device by connecting to a dedicated

		charging cable.
6	Charging cable	Device-specific charging cable, one end magnetically attaches to the device, and the other end connects to a standard USB power source.
7	Adapter finger pad	A variety of finger pads of different thicknesses are provided in the product accessories, which are installed under the main unit to adapt to different finger circumferences and improve wearing comfort.

2.2 Packing checklist

- *iSleepRing* host
- User manual
- Charging cable
- Adapter finger pad

2.3 Unboxing Preparation

Before unboxing, please carefully inspect the packaging box. If any damage is found, please contact the shipping company or our company immediately. If the packaging is intact, unpack the package using the correct method. Carefully remove the equipment and other components from the packaging box and check each item according to the packing list. Check for any mechanical damage to the equipment and ensure all items are present. If you have any questions, please contact our company immediately.

※ Note:

- Please keep the packaging box and packaging materials for future transportation or storage.
- When handling the packaging materials, it is important to comply with local regulations or the waste disposal system and keep the packaging materials

out of reach of children.

- The equipment may be susceptible to microbial contamination during storage, transportation, and use. If any damage is detected, please do not use it.

2. 4 Initial Use of the Device

Download the App:

App Name: Fitfaith Sleep



※ Note:

If you have previously installed the App, please update it to the latest version. The QR code on the bottom of the device packaging box can be scanned by users for installation.

※ Tips:

After installing the App, please browse through the instructional video on the "Me" page for a smoother user experience.

Power On:

During the initial unboxing and setup, press and hold the touch

button on the front of the device for 6 seconds to power it on.

Power Off:

After powering on the device, press and hold the touch button on the front of the device for 6 seconds. The pulse oximeter will prompt for a shutdown confirmation. Once confirmed, the device will power off.

Bluetooth Connection:

The connection between the device and the App uses Bluetooth communication to synchronize data and control the device. Therefore, after installing the App, you need to establish a Bluetooth connection with the device. The device's Bluetooth function will be automatically enabled and in pairing mode after powering on.

- 1) Ensure that the Bluetooth switch on your smartphone or tablet is turned on.
- 2) Ensure that the location switch on your smartphone or tablet is turned on.

3) If it's the first time using the device, follow the App instructions to perform the Bluetooth pairing operation and bind the device to the App.

4) If the App has previously paired and bound the device, it will automatically connect to the device when the App is opened.

※ Note:

Do not perform device pairing in your smartphone's Bluetooth settings menu. Please use the App for device pairing and binding.

2. 5 App User Registration and Login

The App provides two modes for users: registration mode and guest mode. Both modes have the same functionality during device usage. The difference is that if a user registers in the App, the system will create an account for the user and store their data in the cloud for 1 year. This allows users to access their historical data when switching smartphones or logging in on other

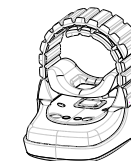
smart devices using their registered account. On the other hand, in guest mode, users need to manage their own data, and the data is only saved on the smart device where the App is installed. In guest mode, data sharing through data links is not available.

2. 6 Wearing and Measurement



1. Follow the diagram to properly position the device on the tip of your thumb. Align the sensors

on the device with the edge of your thumbnail. Adjust the magnetic strap to achieve a secure fit that is comfortable and prevents the device from falling off.



2. Select the appropriate silicone pad for your thumb circumference from the accessories provided.

Install the silicone pad on the bottom of the device to ensure a snug and

comfortable fit.

※Note:

- The sensor part of the smart ring must be in direct contact with the skin. Do not measure using fingers with nail polish or artificial nails
- Avoid excessive movement during the measurement and avoid measuring under strong ambient light conditions.
- If the blood flow perfusion is too low or if you are in motion, the device may not be able to measure or the measurement error may increase.

3. After powering on the device for the first time, it will remain in a state ready for measurement. Once you wear it on your thumb, the device will automatically start the detection process and display the results on the screen.

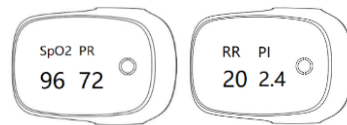
※ Note:

If the wearing time is less than 0.5 hours, the measurement data will not

be synchronized to the App.

2.7 Device Display

After correctly wearing the device, the screen will automatically turn on and sequentially display the current measurement results.



The meanings of each parameter displayed on the screen are as follows:

SpO2: Blood Oxygen Saturation
PI: Perfusion Index PR: Pulse Rate
RR: Respiratory Rate

The device displays the measurement results after wearing and automatically turns off the screen after 120 seconds to avoid disturbing your sleep at night. During wearing, you can shake the device or press the touch button to wake up the screen for display.

※ Note:

To protect your sleep during the night, you can control the screen display by turning on or off the "Shake to Wake" feature on the "Device" page in the App to avoid unintended screen activations caused by device movement.

2.8 Real-time Measurement

You can view real-time data measured by the device in the App, including blood oxygen saturation, heart rate, respiratory rate, and perfusion index.

1. Connect the device to the App.
2. Select the "Real-time Measurement" page in the App.

The real-time measurement page displays the signal strength of the Bluetooth connection between the App and the smart ring device, helping you ensure a proper distance for device connection.

During the real-time measurement, you can set a blood oxygen reminder threshold on the device to monitor its operation. When the measured value

falls below the set threshold, the App will provide audible and vibration alerts. You can individually turn off the sound and vibration alerts on the real-time measurement page.

※Note:

It is important to maintain an uninterrupted Bluetooth connection between the App and the device during the real-time measurement. To ensure continuous and effective monitoring, Please make sure:

- the device has sufficient battery power and remains securely worn in the correct position.
- During real-time measurement, make sure the sound on your phone is turned on and not set to silent mode. Adjust the volume level to ensure that the alerts are audible during use.
- Disable the automatic screen-off feature on your mobile device and keep the App in the foreground, specifically on the

real-time measurement page, to prevent the phone or tablet's operating system from stopping the App's operation.

- Keeping your phone continuously charged can reduce or prevent the chance of the App being stopped by the phone or tablet's operating system.

2. 9 Stopping Operation and Data Synchronization

After removing the device from the wearing position, it will automatically stop the measurement and enter a low-power sleep mode when idle. When you open the App and connect it to the device, the measurement data will automatically synchronize to the App.

※Note:

- Before synchronizing data, ensure that the connection between the App and the device is normal (check the connection status on the device

page in the App).

- Measurement data less than 0.5 hours will not be synchronized to the App as it is not considered sleep data.

2. 10 Ensuring Sufficient Battery Power for Sleep Monitoring

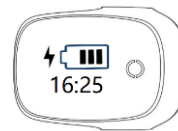
The device can provide continuous monitoring for up to 18 hours under full battery conditions, ensuring ample battery life for continuous sleep monitoring.

Before conducting sleep monitoring, please ensure that the device battery is charged to 80% or above to ensure sufficient battery power for overnight monitoring.

You can check the charging status on the ring screen or the battery status on the "Device" page in the App.

Connect one end of the charging cable to a 5V USB charger and attach the other end to the charging port of the device for charging. During the charging process, the device interface will display the charging

status and current time.



Once the device is in normal operating mode, it will automatically start measuring when worn and enter a low-power standby state when removed from the wearing position, requiring no intervention.

2. 11 Viewing Sleep Monitoring Results and Historical Data

The App organizes and presents the data synchronized from the device in a readable format. You can view the latest measurement results, detailed data for the night, and historical data.

The home page provides calculated statistical values for the night's data, including hypoxic burden, blood oxygen time percentage, oxygen desaturation index, TS90%, lowest blood oxygen, etc. It also provides a reference range and a ruler to

understand the health status indicated by the measurement results, with green representing a healthy result and red indicating a result that requires attention.

The sleep monitoring data indicators on the home page support viewing and reviewing on a weekly, monthly, and yearly basis. Simply click on the corresponding data indicator panel to view the data.

2. 12 Adding Notes to Today's Data

On the home page of the App, there is a "Add Note" function that allows you to add notes to the recorded sleep data for the night. You can record activities during the day that may affect the sleep monitoring results, such as exercise, drinking, medication, or the use of therapeutic devices during sleep. This helps understand the impact of these events on the sleep process. These annotations will be reflected in the historical review of measurement data, allowing you to view the

recorded notes and their history. Adding notes to the data helps you understand the changes in sleep health data and the impact of events, allowing you to choose a healthy lifestyle. Your health is our priority.

2. 13 Sharing Measurement Results

In the top right corner of the home page or the detailed data page of the App, you can share the data from the night's measurement. The App supports multiple sharing methods, including report images, raw measurement data (in CSV format), and web links. Each method supports printing and direct sharing via social media apps with contacts.

The image option generates a report within the app, while the web link provides a web-based report that can be viewed on a tablet or computer. When you share with others, they can use different tools to view your data, including smartphones, tablets, and computers. We recommend using a computer to view the web

link as it offers detailed data presentation and allows for zooming in on the data with a second-level resolution, providing a comprehensive view of the measurement data details. The web link is supported by the following browsers:



We value your privacy, and when sharing the data, only your user ID is provided. If you want to provide more information to the recipient, you can fill in the desired content in the customized information for sharing. The data link you share has a default validity period of 24 hours. After 24 hours, the data link will expire. However, you can adjust the validity period of the data link as well.

2. 14 Smart Vibration

When the measured blood oxygen level falls below the preset value (threshold), the device's vibrator will

be activated. The vibration will stop once the blood oxygen level recovers above the preset value. You can set this threshold to protect your sleep.

During the threshold vibration activation, you can shake the device or touch the buttons to stop the vibration.

You can adjust the vibration intensity and repetition frequency to suit your sensitivity on the "Device" page of the app.

You can also disable the vibration through the app.

The records of device vibrations during the night will be synchronized and presented in the app. You can view them in the detailed data section.

2. 15 Seeking Help and Providing Feedback

In the "Me" page of the App, we provide instructional videos and a FAQ section. Before using the device, please watch the instructional videos, and if you encounter any issues,

refer to the FAQ section for answers. You can also use the user feedback feature to provide us with your valuable feedback.

3. Maintenance

3. 1 Time and Date

Once the device is connected to the app, the device time will automatically sync with your phone's time.

※Note:

When the device runs out of battery, it will lose the time and date. Please recharge the device to connect to the app and synchronize the time.

3. 2 Cleaning and Disinfection

Please use a soft cloth dampened with water or alcohol to wipe and clean the surface of the device.

3. 3 Battery

To maintain the battery in good condition, please recharge the battery every 2 months when the device is not in use to avoid over-discharging.

3. 4 Software Updates

We will continually improve the app and provide software updates to enhance features and fix any issues. When a new software update is available, you will receive a notification and have the option to proceed with the update.

4. Troubleshooting

Issue	Possible Causes	Possible Solutions
The device screen does not display anything	The battery may be low on charge.	Please charge the device and try again.
	The device may be damaged.	Please contact your local dealer.
The app cannot	The Bluetooth	Turn on the Bluetooth

If you cannot find the device	function on your phone may be turned off.	the function on your phone.
	The location information on your phone may be turned off.	Turn on the location information switch on your phone.
	The device's Bluetooth may be turned off due to low battery.	The device battery is low, please charge it and try again.
	There are	Turn off or place

	more than two rings around the phone.	the rings that do not need to be connected to a farther location or in another room.
	For Android systems, Bluetooth cannot work without location permission.	Allow location access permission.

5. Specifications

Weight	14g
Dimensions	39 × 28 × 13 mm
Battery	Rechargeable lithium polymer
Charging Time	1 hour
Bluetooth	BLE 4.0
Blood Oxygen Range	35% - 100%
Heart Rate Range	25bpm - 250bpm
Respiration Rate Range	10-70rpm
Vibration	Adjustable intensity with 5 levels
Data Storage	Up to 24 hours of sleep data can be recorded
Mobile App iOS	iOS9.0 or above, iPhone4s/iPad3 or above
Mobile App	Android 5.0 or

Android	above, Bluetooth 4.0 BLE
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6. Operating Environment

Operating Temperature:	5° C - 40° C
Storage Temperature:	-10° C - 55° C
Relative Humidity:	15% to 80% non-condensing

7. Electronic Information Product Pollution Control

In this product, the pollution control mark for electronic information products is shown in the figure below:



The number "10" in the mark represents the environmental usage period (in years). Within 10 years from the start of the production date of this product, the toxic or harmful substances or elements contained in the product will not leak or mutate under normal use conditions. The use of the

product by the user will not cause serious pollution to the environment or cause serious damage to their person or property.

8. FCC FCC compliance statement

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.

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.

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

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.