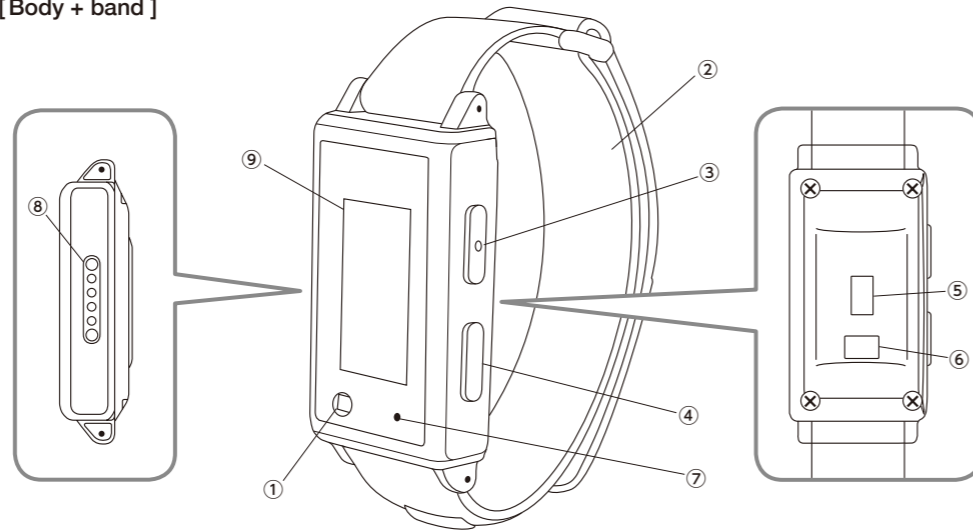


Body and Components

[Body + band]



Number	Name	Description
①	UV sensor	Detects UV rays and measures UV index values.
②	Band	Adjustable size band.
③	FUNCTION button	Navigates between display screens, setting items selections, et cetera.
④	SET button	Is used as the power button, for changing setting values, et cetera.
⑤	Pulse sensor	Measures your pulse.
⑥	Skin temperature sensor	Measures the temperature of your skin.
⑦	Microphone	Measures conversation time or time spent in an environment in which there was conversation.
⑧	Charging terminal	A terminal that connects to the terminal of the provided specialized cradle (charging stand) when charging.
⑨	Display	LED display of the currently selected menu or the current time.

ACTIVITY MONITOR Silmee™ W22

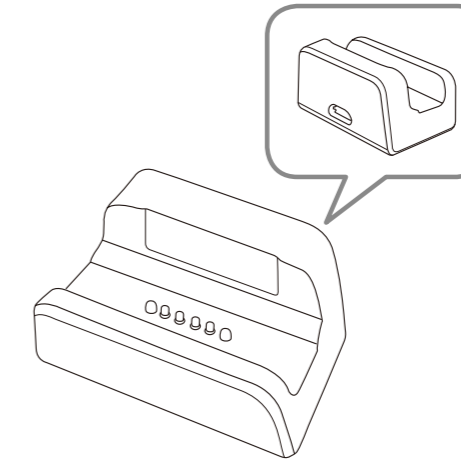
Model No. TK022AM00

Instruction manual

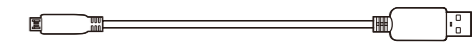
Ver. 1.00

Thank you for purchasing TDK's Activity Monitor.

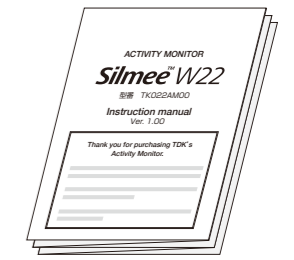
- To use TDK's Activity Monitor (this "Product") correctly and safely, please carefully read the instruction manual provided by TDK (the "Manual") and keep it in mind before using this Product.
- After reading the Manual, please keep it on hand so that others can refer to it at any time.



[The dedicated charging cradle]



[Micro USB cable for the charging cradle]



[Instruction manual]

This Product lets you measure and record your own activities by wearing it on your wrist. You can see the status of your daily activities by transferring the recorded data to a device such as a smartphone. Wireless communication by using Bluetooth® will connect this Product with a specialized smartphone application. The specialized smartphone application can be used to set values such as those for data measurements as well as targets and alarms.

2. SAFETY PRECAUTIONS

This section lists important precautions which users of this Product should observe in order to avoid injury and property damage to you and any third person, and to ensure to use this Product safely and correctly. Please be sure that you understand the meanings of the labels and graphic symbols described below before you move on to the detailed descriptions of these precautions, and comply with the precautions stated.

Explanation of Labels

⚠ WARNING

Indicates "a hazardous situation which, if not observed, could result in death or serious injury".

⚠ CAUTION

Indicates "a potentially hazardous situation which, if not observed, may result in injury or cause property damage".

Explanation of Graphic Symbols

	Indicates "prohibited actions" by using an appropriate picture or text within or near the above graphic symbol.
	Indicates "actions that must be undertaken for safety purposes" by using an appropriate picture or text within or near the above graphic symbol.

Material List

	Parts	Materials/ Surface treatment
Body	Case (top, bottom)	Polycarbonate resin
	Indicator cover	Glass
	Buttons	ABS resin
	Heart rate sensor	Epoxy resin
	Skin temperature sensor	Stainless steel
Band	Band	Silicone resin
	Ring	Nylon resin
Charging cradle	Case	Polycarbonate resin
	Charging terminal	Copper alloy/ gold plating
	USB connector	Stainless steel/ nickel plating

⚠ WARNING		
	Keep this Product out of reach from small children. If the body of this Product is detached and accidentally swallowed, suffocation or injury may occur. In case of accidental swallowing, consult with a medical doctor immediately. The wristband buckle may cause injury.	Do not disassemble or reverse engineer this Product or modify the inner parts. Do not remove the built-in rechargeable battery from the body of this Product.
	Perform exercises to consider your physical condition. Refrain from performing heavy or extreme exercises.	Do not insert metallic objects such as wires into the dedicated charging cradle or cause it to short circuit. Doing so may result in fire, burning of the skin, or electric shock.
	Stop your exercise and consult with a medical doctor immediately, if you do not feel well or your physical conditions would be bad during exercise.	Please use the dedicated charging cradle when charging the device.
	The charging adapter of this Product is not waterproof. Do not connect with the body of the Product if it is wet by sweat or water.	Stop using this Product immediately if the built-in rechargeable battery leaks or overheats.
	Do not look directly at the heart rate sensor lamp. Doing so may cause damage to your eyes.	If the body of this Product becomes hot during use, remove it immediately and turn the power OFF. Failure to do so may result in burning of the skin.
	Do not look directly at the heart rate sensor lamp. Doing so may cause damage to your eyes.	Follow the instructions of a medical doctor or expert if you want to perform physical therapy, training, or diets.
	A magnet is embedded in the charging terminal of this Product for fixing it to the dedicated charging cradle. Keep this Product away from pacemakers. The magnet may impede the operation of pacemakers.	The Micro USB cable on this Product uses PVC. Handling the Micro USB cable will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. Wash hands after handling.

⚠ CAUTION		
	Do not use this Product in a sauna or near other heat sources. Attempting to do so may cause burn injuries.	Using this Product may cause any persons with sensitive skin, skin rash or itch. If you feel such skin rash or itch, stop using this Product and consult with a medical doctor immediately.
	This Product can only withstand splashes, such as rain or washing your face or hands. Do not use this Product in water.	Persons with allergies to certain metals should confirm the Material List and consult with a medical doctor before using this Product.
	Do not use or store this Product in a place exposed to direct sunlight, near a heating appliance, or in dusty or moist surroundings. Do not store this Product on plastic.	If the main body or charging adapter of this Product is abnormally hot, terminate the charging and discontinue use.
	Do not drop, throw, hit, or impact this Product.	There is risk of explosion if the battery is replaced by an incorrect type of BATTERY that can defeat a SAFEGUARD (for example, in the case of some lithium BATTERY types); disposal of a BATTERY into fire or a hot oven, or mechanically crushing or cutting of a BATTERY can result in an EXPLOSION; leaving a BATTERY in an extremely high temperature environment can result in an EXPLOSION or the leakage of flammable liquid or gas; a BATTERY subjected to extremely low air pressure may result in an EXPLOSION or the leakage of flammable liquid or gas.
	Do not use this Product for medical diagnoses or treatment.	
	Do not use this Product on the same arm with a watch that is easily affected with magnets such as an analog watch. Doing so may result in incorrect times displayed or malfunctions.	

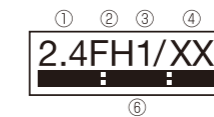
3. INSTRUCTIONS FOR USE

Bluetooth®

- This Product does not warrant interoperability with all Bluetooth® compatible devices.
- The frequency band for this Product is also used by home appliances such as microwave ovens; industrial, scientific, and medical equipment; private radio stations used to identify object movements on factory manufacturing lines (licensed radio stations); specific small-power radio stations (non-licensed radio stations).
- Before using this Product, make sure that no private radio stations for identifying movement or specific small-power radio stations are used nearby, at any time.
- Change the location of the use of this Product or stop use of this Product if it causes radio wave interference on a private radio station for identifying movement.
- To avoid interference with the communication system, do not use the Bluetooth® functions of this Product on airplane.
- Consult with a medical doctor before using this Product if you use a medical device, such as a pacemaker.
- Do not use this Product with medical devices, systems related to human life directly or indirectly, or in environments requiring high safety and reliability.
- Do not use this Product in system environments related

to equipment or computer systems directly or indirectly, requiring high safety and reliability.

- Frequency band of this Product is as follows.



- ① 2.4: Indicates "radio equipment using the 2.4 GHz band".
- ② FH: Indicates "the FH-SS modulation method is used".
- ③ 1: Indicates "the expected interfering distance is 10 meters or less".
- ④ XX: Indicates "the modulation method is a different method".
- ⑤ 4: Indicates "the expected interfering distance is 40 meters or less".
- ⑥ Indicates "the full 2400 MHz- 2483.5 MHz band is used the band for equipment that identifies object movement is unavoidable".

For Good Communication

- In case you want to connect to other devices such as smartphone by using this Product, please use in a place without interference. Some of building structures or obstacles may reduce communication distance. In particular, communication may be disabled by reinforced concrete.
- Do not use the Bluetooth® functions of this Product near radio LANs or other radio equipment, electric appliances generating radio waves such as microwave ovens, in places with many obstacles, or in places with bad radio wave conditions. Otherwise, the communication between this Product and other devices may shut down frequently, communication speed may be slowed down, or errors may occur.
- IEEE 802.11g/b radio LAN equipment and Bluetooth® devices like this Product use the same frequency band (2.4 GHz). If they are used in close proximity, both may suffer radio wave interference and cause communication speed to slow down or to disable the connection. Turn off the power of unused equipment or devices in such cases.
- Change location of use of this Product if proper communication is disabled near radio equipment or broadcasting stations.

4. DISCLAIMER

- IN NO EVENT SHALL TDK BE LIABLE TO YOU AND ANY THIRD PERSON FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES OF ANY KIND (INCLUDING WITHOUT LIMITATION LOSS OF PROFIT) WHETHER OR NOT ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.
- TDK SHALL NOT BE LIABLE FOR ANY DAMAGES CAUSED BY FAILURE TO COMPLY WITH ANY PROVISION IN THE MANUAL.
- TDK SHALL NOT BE LIABLE FOR THE DESTRUCTION, LOSS OF MEASUREMENT DATA THAT HAS BEEN RECORDED IN THIS PRODUCT AND ANY DAMAGES THEREOF, REGARDLESS OF THE CONTENT OR CAUSE OF THE DAMAGE. TDK SHALL NOT BE ABLE TO RECOVER OR RESTORE THE DATA.
- THE DATA MEASURED BY USING THIS PRODUCT IS REFERENCE ONLY. THE ACTUAL VALUES MAY BE DIFFERENT FROM VALUE OF THE MEASURED DATA.
- PLEASE CHECK THE PRODUCT PAGE FOR DETAILS ON COUNTRIES AND REGIONS WHERE THE PRODUCT CAN BE USED.
- IN CASE THAT ANY PROBLEMS AND DAMAGES SHOULD ARISE DUE TO THE USE OF A SMARTPHONE THAT IS NOT COMPATIBLE WITH THIS PRODUCT, TDK SHALL NOT BE LIABLE TO SUCH PROBLEMS AND DAMAGES.

5. PRECAUTIONS

- Charge this Product when using it for the first time or when it has not been used for a long time.
- When you charge this Product after exposure to water such as sweat or rain, wipe off water completely from the body and parts that will be in contact with the charging cradle with a soft cloth before charging.
- Do not use this Product for uses other than its intended use.
- The body and band of this Product is in contact with your skin directly. Sweat, dirt, dust, or other unnoticeable elements may make this Product dirty. See Section "maintenance" in this instruction manual and use this Product properly.
- Do not pull the band of this Product forcibly and bend it in the opposite direction. These conduct may cause:
 - waterproof performance deterioration or malfunction.
 - it may lead to the deformation or destruction of the body and wristband.
- Do not put the body or the band in hot springs or in water containing hot spring components. Doing so may cause problems such as rusting or corrosion of metallic parts such as the charging terminal and sensor components that leads to malfunctions, as well as deterioration of the appearance of this Product.
- Do not wear this Product when swimming, taking a bath, or while in a sauna. Do not expose the body of this Product to water from a faucet or place it in water.

- If thinner, gasoline, solvent, oil, fat, cleaner, adhesive, paint, chemical, or cosmetics containing such materials are put on this Product, it may cause this Product to discolor, deform or destroy.
- This Product uses a lithium ion battery. Observe the instructions of your local government when disposing of this Product.
- This product is intended to be supplied by a DC Power Source marked "L.P.S." (or "Limited Power Source") and rated from 5Vdc, 100mA minimum.

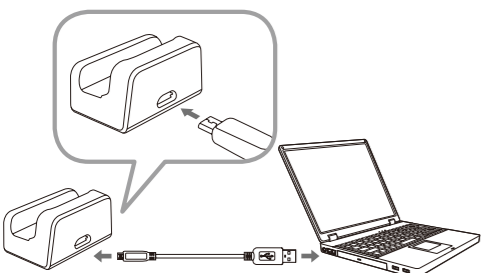
Precautions about water resistance of this Product

- Wipe off water on this Product immediately with dry and soft cloth, if this Product is exposed to the water.
- The waterproof specifications are based on the test results of TDK or a third party consigned by TDK. TDK does not warrant any operations of this Product under any circumstances.

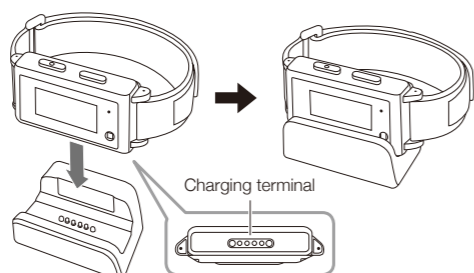
6. HOW TO USE

(1) Charging this Product

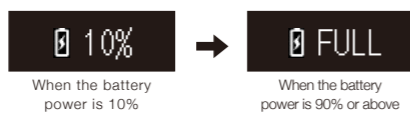
- Please charge the body when using it for the first time or when the battery power is low.
 - Do not charge any other product with the dedicated charging cradle included.
 - Periodic charging is recommended.
- (i) Connect the dedicated charging cradle to a power source with a cable
Connect the dedicated charging cradle to a USB terminal that can be used for charging, such as USB terminals in computers, with the included micro USB cable.



- (ii) Connect the body to the dedicated charging cradle
Plug in the side with the charging terminal downwards.



The indicator changes as seen in the following when the charging begins.



If nothing appears in the indicator, this may mean that the main body is not properly inserted into the dedicated charging cradle. In such a case, please insert it one more time.

Indications of low battery power

The following icons appear in the indicator every 8 seconds when the battery power becomes low. Charge the battery immediately if there is an indication of low battery power.



The estimated charging time and amount of time the Product can be used are as follow.

- Estimated charging time: about 2 hrs. (when charging fully)
- Estimated continuous operating time: about 10 days

*The times listed above are only estimates. The times may change according to usage conditions and environments.

(2) Turn on the power

- 1 Hold down the SET button until the vibrator vibrates
The indicator changes as seen in the following.



(3) Turn off the power

- (i) Press the FUNCTION button 3 times

It will go into SETUP mode.



- (ii) Press the SET button

"PWR OFF" or "パワースト" appears in the indicator.



- (iii) Press the SET button when "PWR OFF" or "パワースト" is displayed

The indicator changes as seen in the following and the power turns off.



(4) Installing the original TDK application first before using it

- (i) Install the smartphone application.

- Access our website from your smartphone and confirm the specialized smartphone application is available for your smartphone.
The website provides a link to the application download.

URL: https://product.tdk.com/info/en/products/biosensor/biosensor/silmee_w22/index.html



- Download from the following site.

Android™ version: From Google Play
iOS version: From App Store

- (ii) Open the app and go to the screen for selecting a device.
Create a new user account or log in.

- (iii) Connecting the device.

Set up the connection with the Silmee W22.

*Refer to "Help" in the mobile application for operational details.

- (iv) Select your "W22" and start the connection.

The terminal where the 6-digit alphanumeric characters (the 6 digits at the end of the 12-digit serial number) on the reverse side of the Product match the alphanumeric characters appearing on the screen of the app is the Silmee W22 you are using. Turn the power ON according to the procedures in (1) when the Product you are using does not appear on the list.

- (v) The screen that indicates the completion of the pairing appears in the app

MEMO

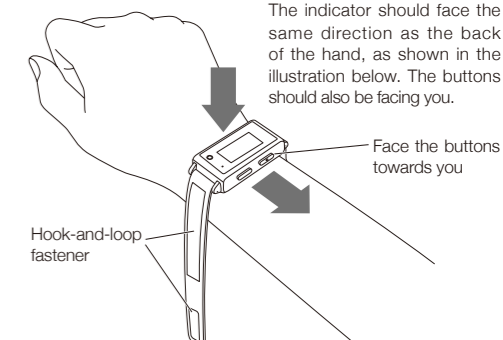
When using an app other than an original TDK app, please contact the company that operates the app for information such as usage instructions.

(5) Attaching

- The Product cannot make accurate measurements if it is not attached properly. Attach the Product properly according to the procedures below.

- (i) Put on the Product

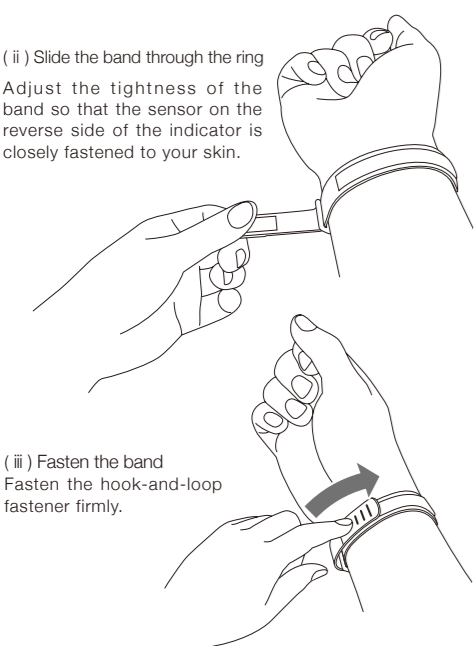
The indicator should face the same direction as the back of the hand, as shown in the illustration below. The buttons should also be facing you.



6. HOW TO USE

- (ii) Slide the band through the ring

Adjust the tightness of the band so that the sensor on the reverse side of the indicator is closely fastened to your skin.



- (iii) Fasten the band
Fasten the hook-and-loop fastener firmly.

7. THE FOLLOWING CASES THAT MAY CAUSE INCORRECT MEASUREMENTS (Inaccurate measurements of activity may be made in the following cases.)

- When the body of this Product operates irregularly
 - when it is hanging from the waist or a bag
 - when it is in a bag that moves irregularly
- When the walking pattern is irregular
 - walking with a shuffle
 - walking with footwear such as sandals, clogs, or Japanese sandals
 - walking in a crowded area
- When using this Product with vertical movements or in an environment with a lot of vibrations
 - standing up and sitting down frequently
 - sports other than walking or jogging
 - going up and down stairs or a steep slope
 - riding a bicycle, motorbike, car, train, or bus
 - physical training centering on the upper body
- When walking extremely slowly
- Repeated short-term walking of less than 5 seconds each time
- When not walking
 - when the arm moves frequently such as when doing desk work
- When using the Product in surroundings with loud noises or continuous vibrations
- When moving a lot during sleep
- If you experience irregularities in your pulse due to a circulatory

condition such as an irregular heart beat that is severe, or frequent premature contractions or atrial fibrillation, this may indicate your heart rate not being measured properly.

- Your heart rate may be measured inaccurately if you have peripheral blood flow problems such as with diabetes.
- Your heart rate may be measured improperly if your blood circulation is poor.
- Heart rates may be measured improperly due to variations between individuals.
- Your heart rate may be measured improperly depending on how the heart rate sensor is fastened to your skin such as if there is a gap between the sensor and your skin.
- In areas with loud noises, the noises may be wrongfully determined as conversation.
- When there is someone speaking nearby, the length of their speaking may be counted as your own speaking time even if you are not speaking.
- Voices coming out of a television set or a radio may be wrongfully determined as conversation.
- The UV sensor measures the intensity of the ultraviolet light that the Product is exposed to and calculates the UV index values. The UV sensor cannot make accurate measurements if it is covered with an object such as a shirt sleeve.
- UV index values differ according to factors such as weather and incidence angles of ultraviolet light.
- This Product records skin surface temperature with a temperature sensor. This Product does not measure body

temperature.

- Your skin surface temperature may be improperly measured depending on the status of your activities such as when you are resting or immediately after exercising.
- Skin temperature may change in places such as near vents of cooling and heating equipment and where there is exposure to direct wind. Skin temperature may also be improperly measured in places where the ambient temperature changes drastically or when there are partial changes in the temperature.
- This Product may make improper measurements if its sensors are unclean. Clean the Product with a dry cloth after removing it.

8. MAINTENANCE

- Use this Product hygienically
 - Wipe off all sweat and other substances with a soft and dry cloth after removing it from your wrist.
 - When the wristband is sweaty or unclean, please wash it well with flowing water. Thoroughly wipe off all the water with a soft and dry cloth after rinsing it with water.
 - Wipe off all sweat and other substances on the body with a soft and dry cloth without using water.
- Please wipe the body with soft and dry cloth once a week.
- Wipe the charging terminal of the body with a soft and narrow cotton swab once a month or if the Product cannot be charged. Please note that applying too much pressure on the charging terminal when cleaning with a cotton swab can lead to malfunctioning.
- Do not apply friction to the charging terminal with a sharp-edged object such as a needle.
- Do not use any acidic or alkaline cleaning agents.
- Do not wipe the Product with substances such as paint thinner, benzene, or alcohol.
- Maintain battery life through periodic charging. Please charge the battery about once a month even when not using the Product for long periods of time.
- Wipe immediately with a soft and dry cloth if it comes in contact with water.

9. DISPLAY EXAMPLES

■ Displaying the time

Press the SET button 1 time.
The time is displayed in 24-hour format.



MEMO

The time displayed on your smartphone will be reflected in this Product if you make initial settings with this Product and the smartphone app (pairing). Please run the smartphone app together with this Product because the time does not appear when it is on default mode or when the battery is dead.

■ Displaying goal attainment levels

<When the set of goals is a number of steps walked>

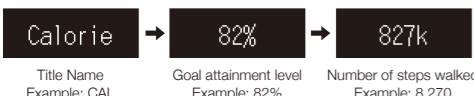
1 Press the SET button 2 times
They appear in the order of title name, goal attainment level, and number of steps walked.



9. DISPLAY EXAMPLES

<When the set of goals is the number of calories burned>

Press the SET button 2 times
They appear in the order of title name, goal attainment level, and number of calories burned.



MEMO

Goal attainment levels show how close you are to reaching your goals of the number of steps you walk or the number of calories you burn that you have set in your smartphone app. This Product can display either the number of steps walked or calories burned.

■ Displaying the battery level

- 1 Press the SET button 3 times



MEMO

Please refer to the link below for further details on operating and displaying.
https://product.tdk.com/info/en/products/biosensor/biosensor/silmee_w22/index.html

10. TROUBLESHOOTING

Situation	Problem solving
The power does not turn ON	Check to see if the power turns on after charging.
Accurate measurements are not being made	Check to see if the power is ON. Check to see if the wristband is being worn properly.
There is no transmission with my smartphone	Check the Bluetooth® settings of your smartphone. Start up the mobile app and perform a pairing.
A 3-digit number following an E (Example: Exxx) appears right after the power is turned ON	Reset the main body. (please refer to the below when resetting the main body)
When resetting the main body	Keep the FUNCTION and SET buttons pressed down for at least 13 seconds to turn the power OFF, and then turn the power ON again. *Please contact the customer support center if the situation does not improve.

11. SPECIFICATIONS

Product name	Silmee™ W22	Body size (without the band)	Approx. 52mm × 24.5mm × 13.5mm
Model No.	TK022AM00	Compatible wrist size	Approx. 150mm to 200mm
Sensor	Acceleration sensor, Heart rate sensor, UV sensor, Temperature sensor (skin temperature)	Built-in battery	Li-ion rechargeable battery
Compatible OS	Android and iOS *Please check the website for the latest compatible versions.	Input voltage	5V ± 10%
Communication	Bluetooth® SMART	Ambient temperature during charging	10°C to 40°C
Operating temperature range	-10°C to 45°C	Charging approach	USB charging with the dedicated cradle
Humidity operating range	20% to 90% (Non-condensing)	Water Resistance	IPX5/IPX7 or equivalent
Continuous operating hours	Approx. 10 days *Time may vary depending on operating conditions. *When the conversation time measurement function is OFF.	Weight (with the band)	Approx. 26g

12. EXPLANATION OF SYMBOLS

FCC ID: 2ADLXTK011AM00

This Product complies with part 15 of the FCC Rules. Operation is subject to the following two (2) conditions: (1) This Product may not cause harmful interference, and (2) this Product must accept any interference received, including interference that may cause undesired operation. This Product 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 Product generates, uses, and can send 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 Product does cause harmful interference to radio or television reception, which can be determined by turning this Product off and on, you are 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 this Product and receiver.
- Connect this Product 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.

<U.S.> FCC Statement



FCC RF Radiation Exposure Statement:

- (i) This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
(ii) For body worn operation, this device has been tested and meets FCC RF exposure guidelines. When used with an accessory that contains metal may not ensure compliance with FCC RF exposure guidelines.

NOTE: TDK IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS PRODUCT.
SUCH MODIFICATIONS COULD VOID YOUR AUTHORITY TO OPERATE THIS PRODUCT.

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App Store is a trademark of Apple Inc, registered in the U.S. and other countries.
iOS is a trademark or registered trademark of Cisco in the U.S. and other countries.
Silmee is a trademark of TDK.
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