

User Manual

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To ensure safe and effective use of this product, please read the user manual carefully. Should you have any questions about the product during use, please contact us promptly by phone, email or MedicTec official website. We are committed to providing you with the best possible service.

Telephone:86-0755-86699216

Email: customer-service@MedicTec.net

Website:www.MedicTec.cn

MedicTec Technology Co., Ltd

Safety precautions

The following is a list of safety precautions that must be followed during use to prevent personal injury or property damage.

- All safety precautions will be explained based on the degree of injury or damage caused by incorrect use of this device. Please make sure to read all instructions before use.

	Warning	This refers to matters that may result in death or severe injury.
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- The safety instructions that must be followed are represented by the following symbols.

	Matters absolutely prohibited.
	Matters requiring execution.



Attention

When the device is in working,



- Please do not use the following device when you use this head machine:
 - Implantable medical electronic devices such as pacemakers;
 - Medical electronic devices such as artificial heart and lung for sustaining life;
 - Medical electronic equipment such as electrocardiographs;
 - If the device is used simultaneously with the aforementioned medical electronic equipment, it may cause malfunction of such medical devices and pose a risk to your health.
- There is a built-in lithium-ion battery inside. Please do not disassemble, modify, immerse in water, throw into fire, or heat it by yourself. Please do not charge, use or put the device in high-temperature environments. Failure to comply may cause overheating, fire or explosion. If you haven't used the device for more than a month, please fully charge it. It can avoid the inability to start the device due to over discharge when lithium batteries are not used for a long time.
- It is prohibited to use this device in places with flammable gases such as anesthetic gases, oxygen, hydrogen, or other flammable chemicals, as there is a risk of explosion or fire.
- Direct laser exposure to the eyes is prohibited to avoid eye damage. If using mirrors or optical devices to observe lasers, it will increase the risk of eye injury.
- This device cannot be used as a head protection device such as a safety device.
- Please do not use the device with wet hair.
- The device should avoid falling to the ground, severe impact, strong sunlight exposure, and gas corrosion.



- Do not use it in high humidity areas such as bathrooms, as it may cause electric shock accidents.

- Do not sprinkle water or other liquids on the device, it may cause electric shock accidents or fire due to short circuits.
- Laser electrostatic discharge is sensitive, do not expose the bottom of the equipment to static or other high voltage sources.
- The continuous operating time per use shall not exceed 30 minutes.
- Use it no more than twice daily; excessive use may cause adverse effects or scalp injury.
- Before using, inspect the device for any visible damage. Stop using it immediately, no matter how minor the damage is. Using damaged equipment may cause personal injury.

Regarding symptoms



This device is prohibited for use by the following individuals:

- (1) Patients with a history of photosensitivity to the 650nm wavelength light emitted by this product;
- (2) Under 18 years of age;
- (3) Have a headache, numbness, distending soreness, or discomfort in the head while using the device.
- (4) Patients with seborrheic dermatitis or scalp cancer;
- (5) Users wearing pacemakers or users of other implantable electronic medical devices that are susceptible to electronic interference;
- (6) Patients who are taking medication that is allergic to light, such as griseofulvin, ofloxacin, hydrochlorothiazide, etc;
- (7) Malignant tumor patients;
- (8) Patients with bleeding tendency;
- (9) Women who are on the period;
- (10) Pregnant and postpartum;
- (11) Individuals (including children) with physical, sensory, or mental disabilities, or lacking experience and knowledge in using this device, are not allowed to use it without supervision and guidance from a guardian.

*When the device is not in use, please ensure it is placed in a location inaccessible to children and pets. Supervise children and pets to prevent them from playing with the device, as this may lead to accidents or injuries.



Individuals with any of the following conditions or those undergoing medical treatment should consult a physician before using this device:

- (1) Cardiac;
- (2) Patients with neurological abnormalities;
- (3) Patients with heat loss;
- (4) With head wounds;
- (5) With a body temperature above 38 °C/100.4°F (febrile symptoms) (e.g., when experiencing severe acute inflammatory symptoms [such as fatigue, chills, blood pressure fluctuations, etc.] or physical weakness), individuals require rest or experience significant physical discomfort;
- (6) Who must rest or experience significant physical discomfort
- (7) Individuals who have undergone cardiac surgery or other visceral surgeries;
- (8) Patients with infectious diseases;
- (9) Patients with skin perception disorders or skin abnormalities
- (10) Patients who are taking medications;
- (11) Patients with abnormal blood pressure
- (12) Patients who cannot freely express their own wishes;
- (13) Patients with impaired perception due to severe peripheral circulatory disturbances caused by diabetes mellitus and other conditions;
- (14) Patients with skin allergy to stainless steel electrode sheets;
- (15) The device electrode sheet features mild surface heating functionality. Users with heat insensitivity or those prone to heat allergy should consult a physician prior to use;
- (16) In addition to the aforementioned cases, individuals experiencing other somatic discomforts.

Abnormalities or malfunctions



- If an abnormality or malfunction occurs, stop use it immediately to avoid smoke, fire or electric shock.

<Examples of abnormal conditions and malfunctions>

- USB/Type-C cable interface is loose with device;
- The device works sometimes and doesn't work sometimes after you turn it on;
- A burnt smell or abnormal noise occurs during use;
- The device overheats abnormally.

→Please do not repair the device yourself. If any of the above abnormalities occur, contact customer service immediately for inspection and repair.

Using protection



- Protect your eyes when using the device. Do not point the light beam output directly at eyes, nor look directly at the beam or view it through optical devices.
- This device emits intense visible light. For safe operation, please wear the device on your head first in accordance with the instructions, then turn on the device.
- Avoid looking directly at the light source or staring at its strong light for an extended period, as this may damage your eyesight.



- The maximum optical energy emitted by the laser diodes is 1.8×10^3 J (30 minutes, 200pcs of 5mW laser diodes). Although the device is equipped with an auto on/off function, stray beams may still be emitted when the infrared sensor is fully blocked. In such cases, please wear fully light-blocking protective goggles.
- During use, do not observe the operation of the laser diodes through the edges of the device. The user must wear the device correctly and avoid positioning the center of the device on the forehead.



Attention

Regarding Symptoms



- Overuse or reduced use of the device will decrease its effectiveness.
- Scalp temperature may increase while using it. If under normal circumstances, skin burns will not occur. If you experience discomfort due to excessive temperature, please stop using it immediately.
- It is recommended to use this device in air-conditioned environments for greater comfort.
- Your eyes should not maintain continuous gaze at the laser beam, as this may trigger conditioned reflexes leading to automatic eye closure. The sensation may resemble staring at sunlight. It is prohibited to observe the laser through optical devices, monocular lenses, or other optical products.

About Power



- If low battery of device, please charge it promptly to avoid over-discharge, which may shorten battery life or even cause battery failure.
- Excessive use or reduced use of this device may diminish its effectiveness.
- During cleaning and maintenance, the Type-C cable must be unplugged.
- Please clean the Type-C connector interface regularly by removing dust and other contaminants, and wipe it with a dry cloth. Otherwise, it may cause insulation failure due to moisture exposure, potentially leading to electric shock or fire.
- If you don't use it, please turn the device off to prevent dust and moisture from degrading insulation materials, which could lead to electrical faults and fires.

Notice of usage

- Avoid objects to fall into or be inserted into the ventilation ports or openings of the

device, and take precautions to prevent insects or small animals from entering the interior of the device. Avoid inserting staples, garbage, water, or other substances into the gaps of the USB/Type-C connection port.

- When the device is at low battery, timely charging should be performed to avoid over-discharge, which may shorten battery lifespan or even cause battery failure.
- Do not use in high-humidity areas such as bathrooms.
- Do not spill water or other liquids on this device, as it may cause electric shock or fire due to short circuits.
- Do not heat it or place it in a fire.
- Do not use or store it in high-temperature(such as in direct sunlight or near other heat sources)environments, as this may lead to overheating, fire, or explosion.
- Do not use this device while charging.
- Do not use it for children or individuals without capacity for expression.
- Do not use it during sleep to avoid potential damage to this device.
- Do not use it during driving. Otherwise, it may cause physical discomfort and lead to accidents.
- Wear this device correctly by placing it on your head and ensuring symmetry between the left and right sides.
- Do not use this device after drinking alcohol, as it may cause accidents or injuries.
- Avoid wrapping the Type-C cable around the device, as this may strain the cable and cause it to break, potentially leading to electric shock or short circuits.
- Do not use concurrently with other medical devices, as this may lead to accidents or adversely affect health.
- Do not tap, disassemble, or modify this device.
- Do not use for purposes other than those specified in the instruction manual, as this may lead to accidents or product malfunctions.



- After a period of disuse, carefully review the user manual again to confirm that the device is functioning properly before commencing use; otherwise, accidents

or injuries may occur.

- After fully charging, immediately unplug the Type-C cable upon power-off.
- Ensure the device is fully charged before first use.
- Do not connect the power supply to charge the device during use.



Hazardous Matters

Before disposal of spent lithium batteries, the lithium batteries must be removed from the device. Power must be disconnected during battery extraction, and the lithium batteries should be disposed of safely. Extraction procedures must be followed:

1. Place the device inside (the side that contacts the head during use) facing upward, and remove the four screws on the device edge with a screwdriver.;
2. Invert the device to place it upside down and remove the lower hemispherical top cover;
3. Remove the two screws on the motherboard located at the rear of the device (on the power button side) using a screwdriver;
4. Remove the entire mainboard;
4. Remove the battery directly from below the motherboard.

Labels, packaging markings, and sample drawings



Warning



Class B Equipment



Do not discard arbitrarily



Carefully



Up



Keep dry

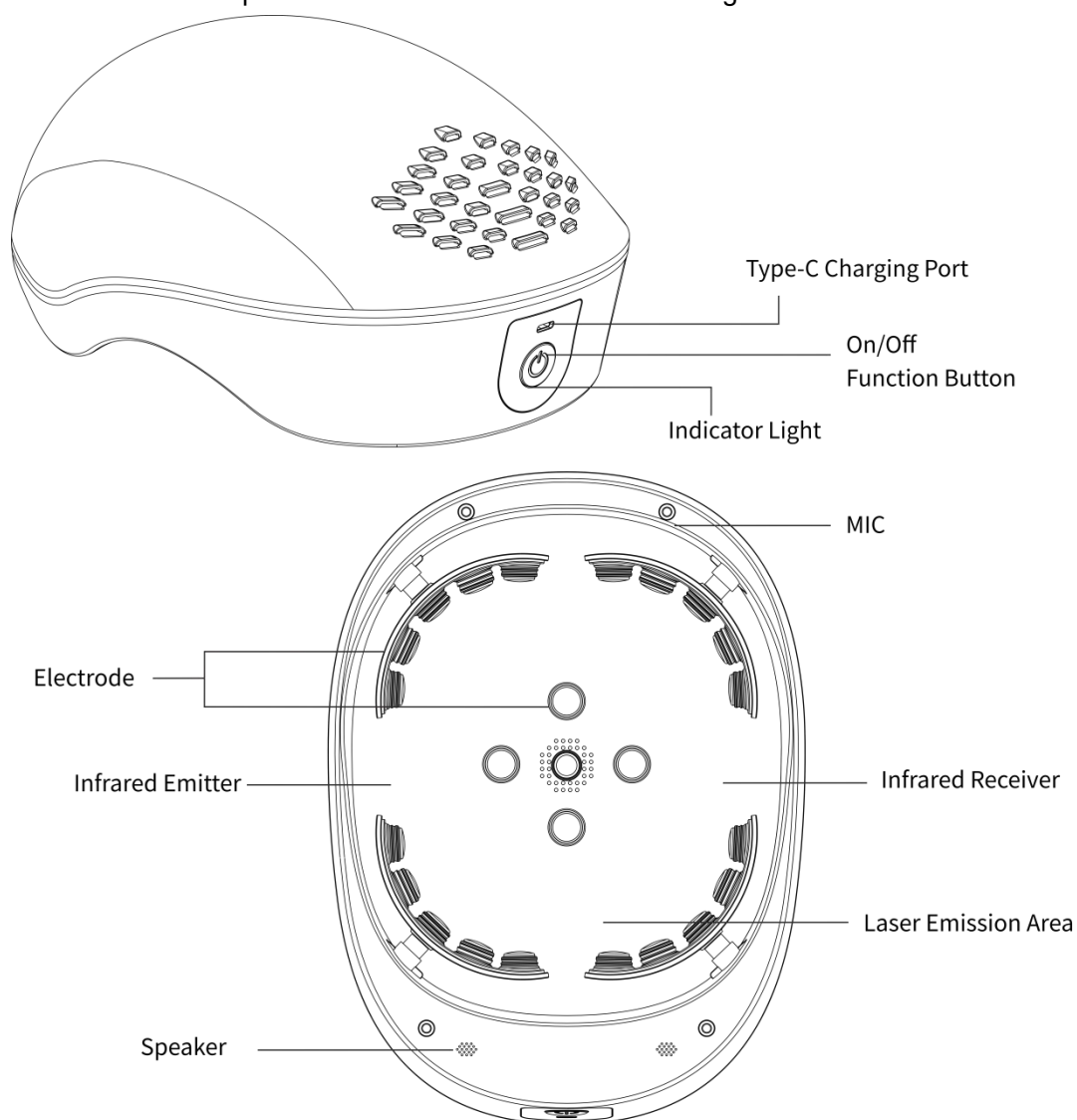


Avoid heat



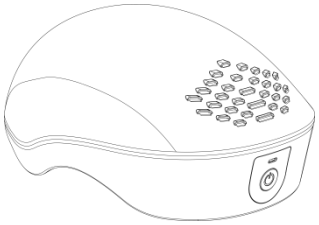
Product Summary

The structural composition of this device is shown in the figure



Packing list is shown in the table below.

Packing List

No	Product Name	
1	Device*1	
2	USB charging cable*1	
3	User manual*1	
4	Warranty card*1	

Preparation for use

- At first use, please fully charge the device if the red light of power button is flashing.
- Please connect a USB cable with a safety standard adapter and then charge the device.
- If the indicator red light stops flashing and turns to a green light, the device is fully charged.
- Notice: Stop using the device when it is charging.

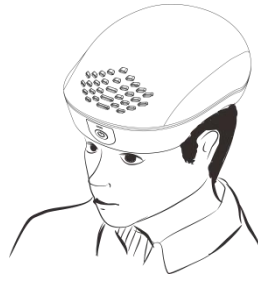
Clean Hair & Wear Device

Please clean your scalp and dry your hair thoroughly before properly wearing the device.

- Instruction diagram of wearing device as below:



Correct (Rear panel is power button)



Wrong (Front panel is power button)

Usage methods for users with different hair lengths

- For users with short hair, if the hair length does not exceed 2 cm, the scalp area affected by alopecia can be exposed.
- For users with M-shaped alopecia who do not experience scalp loss at the vertex, pull back the hair and secure it with non-metallic hair clips or hair/forehead patches to expose the affected scalp area.
- For users with M-shaped alopecia or scalp alopecia, you should pull the hair back to both sides of the head and secure it with non-metallic hair clips or hair/forehead patches to expose the scalp in the affected area, avoiding re-covering with posterior hair.
- For patients with alopecia limited to the scalp, you should manual manipulation of the hairline should be performed to expose the affected scalp area.

APP Download & Use

Please download App before using device

- Scan the QR code & download the MedicTec App, finish registration and complete authentication.



*Android mobile phone Version requirement:

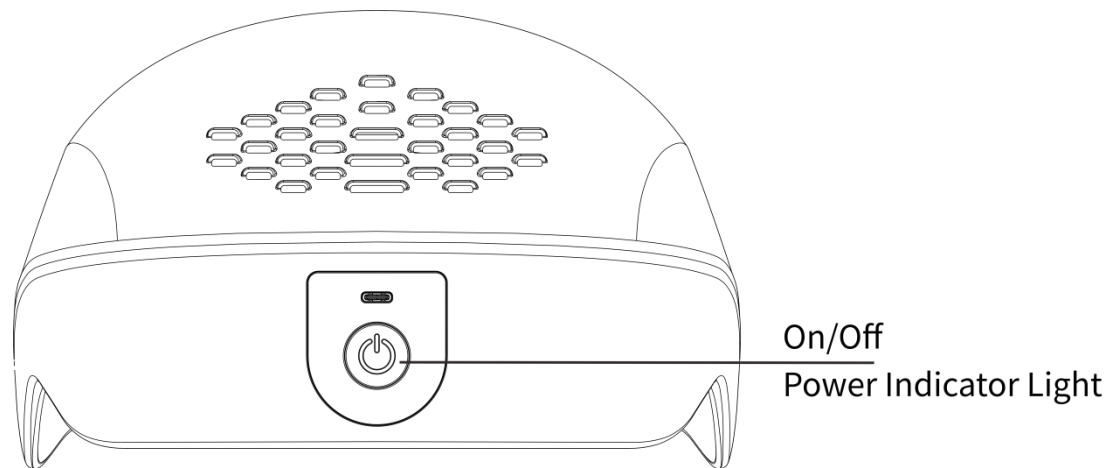
Android8.0

*iOS mobile phone Version requirement:

iPhone7,system iOS 12

- Search “MedicTec” in MedicTec App and add device when the device is standby or at working.

- (1) Press button① to confirm when you match the device with your phone.
- (2) You should match the device by manually at the first using and it'll match automatically after that.



APP Function

- 1、App with Bluetooth function, switch gear and turn On/Off.
- 2、The app will display a countdown timer for the current light therapy session. A voice prompt will announce the remaining time at 5-minute intervals. When the countdown ends, the device will automatically terminate the light irradiation and pulse electrode massage functions, then enter a standby mode with a flashing blue indicator. Please manually press and hold the power button for 3 seconds to shut down the device in a timely manner.
- 3、You can check the usage history of the device and the usage time of the device you matched from the MedicTec App.

Usage Instructions and Functions

- Fully charge the device and wear it correctly. Long press button① for more than 3 seconds to turn on the device. After turning on the device, if the light flashes, that means the device is in standby mode.
- Log in MedicTec APP, your phone will match automatically with device.
- Press button ① briefly to switch standby mode to activate the device.
- Long press for 3 seconds to turn the device off when it is in standby or at work.

- The user should wear the device correctly and then turn it on. It is suggested to use it once a day, for 15 to 30 minutes each time.
- Take the device off while using it for lighting; it will automatically stop working and enter standby mode with a blue light flashing.

Indicator light instrument of device

⏻ Power Button	⏻ Red light flashes	Low power
	⏻ Red light stays constantly on.	Charging mode
	⏻ Green light flashes	Working mode
	⏻ Green light stays constantly on.	Finish charging
	⏻ Blue light flashes.	Standby mode

*While you are using the device, you can engage in activities such as using your phone or watching TV. Please shake your head or lower your head to prevent device displacement.

Avoid more strenuous activities such as jogging, cooking, and driving.

Specifications & Parameters

Product Name	Head Massager
Model NO.	MA002
Charging Volt	DC5.0V
Battery	Lithium battery 3.7V, 2600mAh
Device Using time	1 Year
Device Size	279mm x 206mm x 135mm
Net Weight	650g
Operative norm	GB/T 4706.1-2005,GB/T 4706.10-2008, GB 7247.1-2024

Technical Indicators

Main technical indicators

Light source type	Class 3R Laser, visible light
Peak wavelength	650nm±10nm
Laser output power	5mW/unit, error rate ±20%
Laser output power instability rate	≤10%
Light output power uniformity rate	±20%
Pulse width	60ms±2ms
Impulse frequency	10Hz±0.1Hz
Noise during work	It should be ≤65dB(A)
Surface temperature of the light radiation output area	<55℃

Transportation & Storage Environment

Environment Temperature	-20℃~55℃
Relative humidity range	<93%RH, non-condensable
Atmospheric pressure range	50kPa~110kPa

Device Work Environment

Environment Temperature	5℃~40℃
Relative humidity range	<90%RH, non-condensable
Atmospheric pressure range	70kPa~110kPa
Device warm-up time	If transported or stored outside the operating temperature range, allow the device to rest at room temperature for 2 hours prior to use to ensure it reaches ambient temperature before operation.

Secur

ity Classification

Classification by type of electric shock protection	Internal power supply equipment
Classification by degree of electric shock protection	Class B
Classification by protection level against liquid ingress	Not applicable
Classification of safety levels for use with flammable anesthetic gases mixed with air or with oxygen or nitrous oxide	Equipment that cannot be used under conditions involving flammable anesthetic gases mixed with air, or flammable anesthetic gases mixed with oxygen or nitrous oxide.
Classify by operation mode	Long running
Whether the device has an application component for protection against defibrillation discharge effects	Not applicable

Classify by whether the device has signal output or input components	Not applicable
Classify by permanent or non-permanent installed equipment	Non-permanent installation equipment

After

-sales service & Maintenance

Maintenance & Care

- The device should be gently wiped with a soft cloth moistened with 75% alcohol every two weeks.
- Do not use chemicals such as diluents or gasoline to clean equipment.
- Note: This device must not be placed in water or other liquids, and water must not enter the top ventilation port.
- If any component becomes wet, immediately disconnect the power supply, shut down the equipment, and place it in a ventilated or sunny location to dry. Do not use dryers.

After-sale Service

This device is entitled to a 1-year warranty from the date of purchase, provided that the purchase invoice or warranty certificate is presented.

The following situations are not covered by warranty:

- Malfunction caused by unauthorized disassembly, installation, or modification of the equipment;
- Failure caused by accidental drop during use or handling;
- Damage caused by non-compliance with the instructions for use and cleaning maintenance methods;
- Malfunctions caused by improper repairs at unauthorized service centers.

Users are not permitted to repair the equipment independently. Only authorized professionals of our company are allowed to perform maintenance on this equipment. During repairs, direct exposure to laser beams must be avoided, and protective eyewear with appropriate optical density should be selected based on the wavelength of the

product's laser to enhance eye protection.

Preventive Inspection

- Inspect the inner and outer protective covers as well as the power cord for damage every two weeks.
- Perform laser power testing at least once annually. Notify the manufacturer for laser replacement when significant power reduction is observed.
- The rated output power of the laser shall be inspected annually by technicians with professional testing qualifications.
- For routine testing, a laser power meter certified by metrological authorities with a measurement range of 40 mW and a wavelength measurement range of 300 nm to 1550 nm should be used.
- Method for laser output power measurement: Start the equipment and allow 90 seconds of warm-up before operation. Position the probe of the laser power meter as close to and aligned with the laser diode as possible. Measure the maximum output power at nine uniformly distributed points, then calculate the average value. Error = (Average value - Nominal value) × 100% / Nominal value.
- Method for detecting laser output power instability: After any test point, fix the probe of the test power meter as close as possible to the laser diode. After 90 seconds of startup warm-up, measure the optical output power every 30 seconds, totaling 10 measurements. Calculate the instability using the following formula:

$$\Delta P1 = 2 \times \sqrt{\frac{\sum_{i=1}^n (P_i - \bar{P})^2}{(n-1)(\bar{P})^2}} \times 100\%$$

$\Delta P1$ -output power instability;

$\bar{P}$ -Average output power;

$P_{i=1}$ -The output optical power of the i-th measurement;

n -Number of measurements

If the **laser** output power error exceeds 20% or the laser output power instability exceeds 10%, the device should be discontinued and repaired, adjusted, or calibrated by the manufacturer.

Environment Protection

This equipment is designed and manufactured in compliance with safety and environmental protection requirements. If no external casing is removed and the equipment is used correctly, it will not pose any harm to humans or the environment.

Where permitted by regulations, materials that may pose environmental hazards must be disposed of in an appropriate manner if their use is unavoidable.

Notice:

- Waste generated by the equipment must not be disposed of together with industrial or household garbage. In accordance with local and national environmental protection regulations, waste produced by this equipment, as well as the equipment itself upon reaching its service life, should be handled using appropriate methods.
- The device is equipped with a lithium battery and can be disposed of in accordance with relevant environmental protection regulations or requirements upon decommissioning.
- Reusable materials can be recycled by qualified waste management companies to reduce environmental pollution.

To protect the environment, waste generated during equipment operation should be recycled or properly disposed of. Upon reaching the end of the service life of this equipment, you may notify us for recycling. We will handle the disposal strictly in accordance with relevant national environmental protection regulations.

Component Name	Hazardous Material					
	(Pb)	(Hg)	(Cd)	(Cr(VI))	(PBB)	(PBDE)
Plastic shell	○	○	○	○	○	○
Lithium battery	X	X	X	X	○	○
Display screen	○	○	○	○	○	○
Circuit board	X	○	○	○	○	○

Remarks:

- 1.This form is prepared in accordance with the provisions of SJ/T 11364.
- 2.○:Indicates that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirements specified in GB/T 26572.
- 3.x:indicates that the content of the hazardous substance exceeds the limit requirements specified in GB/T 26572 in at least one homogeneous material of the component.

Common Troubleshooting

Common faults	Probable cause	Solution
Not working after startup	Main-board damage	Return for inspection and repair
	Battery low	● Check if fully charged before use. Restart after confirming no abnormalities. ● The fault remains unresolved. Return to the factory for repair.
Stopped unexpectedly during working	The device's scheduled working time has ended.	● Restart the device
	Main-board damage	Return for inspection and repair
	Abnormality in laser emission window	Return for inspection and repair
Cannot match Bluetooth	● Your phone cannot be searched ● Can only search for device through the App. Cannot search for connections in the phone system settings.	● Check if your phone has Bluetooth enabled and the device is fully charged before reconnecting. ● Restart your phone or device and try again one or two more times
Button is not working	Button error	Return for inspection and repair
Abnormal overheating of power cord/power plug	Power cable is damaged	Return for inspection and repair

EMC Declaration

Users should install and operate the device based on the electromagnetic compatibility (EMC) information provided in the random documents. Portable and mobile RF

communication devices may affect device performance; therefore, avoid strong electromagnetic interference during operation.

The cable information for this device is as follows:

Name	Length(m)	Block or unblock	Model No.
USB cable	1.0	Unlock	—

The device features a built-in Bluetooth module with transmission/reception frequency ranging from 2.402GHz to 2.480GHz, employing GFSK modulation and maintaining a limited radiation power of 0dBm.

Warning: The use of accessories, transducers, and cables other than those specified by the manufacturer of the device or system as spare parts for internal components may result in increased emission or reduced immunity of the device or system.

Guidelines and manufacturer's statements-Electromagnetic emissions		
The equipment is intended for use in the electromagnetic environment specified below. Purchasers or users shall ensure its operation within such electromagnetic conditions.		
Faunching test	Compliance	Electromagnetic Environment-Guidelines
Conducted emission GB4824	1 group electrode	The device only provides the necessary radio frequency (RF) energy for its internal functions. Consequently, its RF emission is minimal and is unlikely to interfere with nearby electronic equipment.
Radiation emission GB4824	Class B	This intelligent device is suitable for non-domestic industrial or professional environments, as well as independent power supply systems not directly connected to residential public low-voltage power
Harmonic distortion GB17625.1	Not appliance	
Voltage fluctuation and flickering	Not appliance	

GB17625.2		grids.
The field strength of fixed RF transmitter sites—including wireless (cellular/wireless) telephones, ground-based mobile radio base stations, amateur radio systems, AM (amplitude modulation) and FM (frequency modulation) radio broadcasts, as well as television transmissions—cannot be accurately predicted theoretically. To evaluate the electromagnetic environment of fixed RF transmitters, electromagnetic field surveys must be conducted. If the field strength measured at the MedicTec device location exceeds the applicable RF compliance levels, the device should be tested to verify its operational integrity. In cases of abnormal performance, corrective measures may be necessary, such as reorienting or repositioning the MedicTec device. b. Across the entire frequency range from 150 kHz to 80 MHz, the field strength should be below 3 V/m.		

Recommended isolation distances between portable and mobile RF communication devices and between devices			
The device is intended for use in an electromagnetic environment where RF radiation interference is controlled. Based on the maximum rated output power of the communication equipment, purchasers or users may prevent electromagnetic interference by maintaining the minimum recommended distance between portable and mobile radio frequency communication devices (transmitters) and the MedicTec device.			
Maximum rated output power of transmitter/W	150kHz~80MHz $d = 1.2\sqrt{p}$	80MHz~800MHz $d = 1.2\sqrt{p}$	800MHz~2.5GHz $d = 2.3\sqrt{p}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For the maximum rated output power of transmitters not listed in the table above, the recommended isolation distance d (in meters, m) can be determined using the formula from the corresponding transmitter frequency column. Here, P denotes the maximum			

rated output power of the transmitter provided by the manufacturer, measured in watts (W).

Notice 1: At the frequency points of 80 MHz and 800 MHz, formulas utilizing the higher frequency range are employed.

Notice 2: These guidelines may not be applicable to all scenarios, as electromagnetic wave propagation is influenced by the absorption and reflection of buildings, objects, and human bodies.

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.

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

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.

FCC Radiation Exposure statement

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