



i5

User Manual
Automatic External Defibrillator

CE 2797

www.amoulmed.com

Release Version: A2.2

Revision date: 2022.10.12


Contents

| | |
|--|----|
| Contents | 1 |
| Product information | 2 |
| Intellectual Property Right | 3 |
| Statement | 4 |
| Return | 6 |
| Equipment Description | 8 |
| Warning、Attention and tips | 8 |
| 1 Equipment description | 11 |
| 1.1 Purpose | 11 |
| 1.2 Indication | 11 |
| 1.3 Contraindication | 11 |
| 1.4 Application | 11 |
| 1.5 User qualification | 11 |
| 2 Installation and setting | 12 |
| 2.1 Setting i5 | 12 |
| 2.2 CPR setting | 12 |
| 3 Defibrillation | 13 |
| 3.1 CPR guide | 13 |
| 3.2 Preparation for rescue | 13 |
| 3.3 Main rescue sequence | 13 |
| 3.4 CPR guide | 14 |
| 3.5 Data storage | 14 |
| 4 Sanitary treatment | 16 |
| 5 Maintenance | 17 |
| 5.1 Battery | 17 |
| 5.2 Battery replacement | 17 |
| 5.3 Defibrillator electrode | 17 |
| 6 Technical parameter | 18 |
| 6.1 Management category of medical equipment | 18 |
| 6.2 Physical specification | 18 |
| 7 EMC | 18 |
| 7.1 Declaration of magnetic radiation | 18 |
| 7.2 Declaration of electromagnetic immunity - Requirements for all equipment systems | 19 |
| 7.3 Declaration on guide and manufacturer - Electromagnetic immunity | 20 |
| 7.4 Recommended isolation distance | 21 |
| 8 Storage and transportation | 22 |

Product information

Thanks for purchasing i5 Automatic external defibrillator.

To use the instrument correctly, please carefully read and understand the Manual before using. Keep the manual properly after reading and put it in an accessible position.

| | |
|---|--|
| Product name: | Automatic external defibrillator |
| Specification and model: | i5 |
| Name of registrant: | AMBULANC (SHENZHEN) TECH. CO., LTD. |
| Domicile of registrant: | 3rd Floor, Block C, Building #5 Skyworth Innovation Industry Park Tang Tou 1st Road, Shiyan, Baoan District 518108 Shenzhen PEOPLE'S REPUBLIC OF CHINA |
|  Name of manufacturer: | AMBULANC (SHENZHEN) TECH. CO., LTD. |
| Address of manufacturing site: | 3rd Floor, Block C, Building #5 Skyworth Innovation Industry Park Tang Tou 1st Road, Shiyan, Baoan District 518108 Shenzhen PEOPLE'S REPUBLIC OF CHINA |
| EU representative: | Shanghai International Holding Corp. GmbH (Europe) Eiffestraße 80, D-20537 Hamburg, Germany |
| Date of manufacturing: | See label on main unit |
| Service life: | 8 years |
| Software release: | V1.0 |
| Revision date: | 2022-10 |



Notes:



The instrument is not designed for family use.

Intellectual Property Right

© 2022 AMBULANC (SHENZHEN) TECH.CO.,LTD. All rights reserved.

This product and its operating manual are the intellectual property of AMBULANC(SHENZHEN) TECH.CO.,LTD., including but not limited to patent right, trademark right and copyright.

Ambulanc technology company has the final right to interpret this manual.

Ambulanc technology company has the right to handle this manual as confidential material. Without prior written approval of Ambulanc technology company, any individual or organization shall not disclose nor access all or parry of the information in this manual in any way, nor handle this manual in any other way, including but not limited to, publishing, modifying, copying, issuing, leasing, recomposing and translating.



This is the registered trademark or trademark of AMBULANC(SHENZHEN) TECH.CO.,LTD., and these trademarks and related Ambulanc technology company logo are intangible property owned by AMBULANC(SHENZHEN) TECH.CO.,LTD. Use of any other trademarks or logos in this manual is for edition only, rather than any other purpose, and they are owned by their respective owners.

Statement

Ambulanc technology company reserves the right to modify this manual without prior notice.

Ambulanc technology company reserves the right to change related technology without prior notice.

Ambulanc technology company reserves the right to alter product specification without prior notice.

Ambulanc technology company makes no warranty in any form concerning this manual, including (but not limited to) guarantee for implied marketability and adaptability for a specific purpose.

Ambulanc technology company will, at its own discretion, take responsibility for safety, reliability and performance of the instrument in one of the following cases:

- Any assembly, expansion, readjustment, improvement and repair operations are performed by any professional approved by Ambulanc technology company;
- Related electrical equipment is in compliance with national standards;
- The instrument is used in accordance with the operation instructions.

Ambulanc technology company will not be responsible for safety, reliability and operation condition of the product in one of the following cases:

- Any component is dismantled, expanded or re-adjusted;
- The instrument is repaired or changed not by any personnel approved by Ambulanc technology company;
- The product is not used correctly in compliance with this Operating Manual.

Basic UDI-DI is the main key in the database and relevant documentation (e.g. certificates, declaration of conformity, technical documentation and summary of safety and clinical performance) to connect devices with same intended purpose, risk class and essential design and manufacturing characteristics.

Links to the summary of safety and clinical performance:

<https://ec.europa.eu/tools/eudamed>

A notice to the user and/or patient: Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

Maintenance Service

Scope of Charge-Free Service :

- Charge-free service is provided for any equipment in the range of Ambulanc technology company warranty terms.

Scope of Paid Service :

- Paid service is provided for any equipment beyond the range of Ambulanc technology company warranty terms.

As well as in one of the following cases even during the warranty period:

- Damage caused by personal fault;
- Improper use;
- Grid voltage beyond the limits;
- Irresistible natural disaster;
- Use of spare part/ consumables not approved or machine service performed by personal not authorized by Ambulanc technology company.

Warning :

Failure to implement a set of satisfactory service/maintenance plan by any hospital or institute responsible for using this instrument may cause malfunction of it or even endanger body health.

Warranty

Manufacturing Process and Raw Material :

Ambulanc technology company warrants that no failure will be resulted from any defect in manufacturing process or raw material when this instrument is used and serviced correctly.

After-Sales Service Unit

After-Sales Service Dept., AMBULANC ((SHENZHEN) TECH.CO.,LTD.

Address: 3th Floor, Block C, Building #5, Skyworth Innovation Industry Park, Tang Tou 1st Road, Shiyan Town, Baoan District, Shenzhen 518108, P.R.China

Service Hot Line : 400-9969-120

Tel : +86-755-26072215 Fax : +86-755-23016012

Web site: <http://www.amoulmed.com>

E-MAIL: manager@amoulmed.com

Return

Return Procedure

Any return as necessary shall comply with the following procedure:

- Acquire right of return: Contact Ambulanc technology company customer service, and provide the product ID labeled on external packaging of the instrument, which must be legible for return approval. Indicate product model and describe the reason for return.
- Freight: Any expenses (including customs fee) incurred in transporting the instrument to Ambulancanc shall be paid by the user.

Important Information

1. After purchase of the product, the customer shall take full responsibility for maintenance and management of it.
2. Quality assurance will not cover the following even during the warranty period :
 - any damage or loss resulted from improper use or misuse of the product;
 - any damage or loss caused by force majeure such as fire, earthquake, flood or lightning;
 - any damage or loss attributed to failure to meet any operating condition required for the system, such as insufficient power supply, improper installation or unfavorable environmental conditions;
 - any damage caused by improper packaging when returning to Ambulanc technology company;
 - any damage or loss incurred due to use of the system in the region not initially intended for it; and
 - any damage or loss caused due to purchase from any unauthorized dealer or agent.
3. This equipment can be used only by certified medical staff.
4. Any software or hardware of this product must not be changed or modified without authorization.
5. In any case Ambulanc technology company will take no responsibility for problem, damage or loss resulted from re-installation, change or repair of the system performed not by personnel authorized by Ambulanc technology company.
6. This system is intended to provide the data required for clinical diagnosis for physicians. The physician takes responsibility for diagnosis process. Ambulanc technology company takes no responsibility for any diagnosis process.
7. Be sure to back any key data to external storage medium, such as clinography and notes.
8. Ambulanc technology company takes no liability for loss of data stored in the system due to the operator's fault or any exceptional condition.
9. This manual contains warnings for foreseeable potential hazards. User shall keep watch at any time for any hazard not stated in the manual.
10. The Ambulanc technology company is not responsible for damage caused by defects in the equipment itself or damage caused by mistakes made by the user.
11. The Ambulanc technology company will not be responsible for any damage caused by the use of this equipment after the service life of the equipment is exceeded.

12. Ambulanc technology company will not bear the cost of transportation if the warranty request is rejected.
13. Ambulanc technology company takes no responsibility for damage or loss resulted from negligence or failure to observe the preventive measures stated in this manual.
14. This manual must be handed over to the successor when the system administrator is changed.

Equipment Description

Please read these safety instructions carefully. These safety instructions are an integral part of the equipment and must be kept accessible for review whenever necessary. For purpose of safety, the following information must be paid attention to.

Warning、 Attention and tips

The following safety marks are used in this manual:

 **Danger :**

Warn the patient and the user of the risk of serious personal injury or even death.

 **Warning :**

Warn of the danger of potential personal injury or even death to patients and users.

 **Attention :**

Indicating potential equipment damage and undesired treatment effect.

 **Tip :**

Giving useful indicative information.

 **Danger :**

- This device emit high energy during defibrillation. This electrical energy can cause serious personal injury or death if not used correctly in accordance with the operating instructions in this manual. Observe all operating instructions in this manual when using this device. Do not operate this equipment until you are familiar with all operating instructions.
- If this equipment is used near a flammable agent or in an oxygen-rich environment, an explosion or fire may occur as the equipment may cause an arc discharge during a defibrillation shock.

- During defibrillation, keep a sufficient distance from the patient and the metal objects connected to the patient to avoid electric shock.

**Warning:**

- Check that the equipment, cables and accessories are working properly before use. Do not use this device if you find a problem.
- This device can only be used with disposable batteries supplied by the company.
- Do not disassemble the defibrillator, otherwise there is a danger of electric shock. This device does not contain any parts that can be removed by the user.
- The electrode sheet needs to be closely adhered to the patient's skin, and there is no gap left. If necessary, the patient's chest hair should be scraped off with a tool.
- If you would like to use this device with equipment not mentioned in this manual, please consult the manufacturer.
- Keep i5 away from sources of electromagnetic interference (such as motors, generators, X-ray equipment, radio transmitters, cellular mobile phones, nuclear magnetic resonance, and other equipment) as it may interfere with the signals being collected and analyzed during operation. . For details, see Chapter 9, "EMC".
- Do not immerse any part of the device in water or other liquids. Also avoid spilling any liquid on the device or accessories. Do not use formaldehyde or other flammable reagents for cleaning, as this may cause an explosion or fire. Do not autoclave or disinfect this equipment or accessories unless otherwise stated.
- Always have a spare battery that is fully charged and properly maintained. When the device displays a low battery warning, replace the battery, as this may cause the device to shut down.
- Disconnect all other devices without defibrillation protection from the patient during defibrillation.
- Do not modify this device.
- Only the manufacturer Shenzhen Ambulanc Technology Co., Ltd. or its authorized professionals can perform maintenance measures such as inspection and maintenance work.

**Attention:**

- Please keep this equipment in a safe place to prevent it from falling, colliding, being subjected to strong shocks or other mechanical external forces.
- Do not mix electrodes of different types and brands. Mixing electrodes can cause large baseline drift or lead to longer baseline recovery time after defibrillation.

- In order to avoid contamination or infection of personnel, the environment or other equipment, equipment and its accessories that meet the service life must be disposed of in accordance with relevant local regulations or hospital systems

 **Tip :**

- Keep this manual near the equipment and make it easy to get it when you operate the equipment.
- When operating this device, the user should stand in front of the device.
- In order to prepare the equipment for use at any time, please install the battery in advance and connect the electrode plug.
- User detection should be performed once the device has been dropped or improperly operated. If any malfunction is detected, do not use the equipment and contact the designated service personnel for repairs.

 **Residual risk**

Even if we've figured out a lot of ways to prevent risk, it could happen:

- Instrument batteries may fail
- The instrument itself may fail to work
- May burn skin during use

Software

Since a lot of quality assurance measures were taken during equipment and software development, the risk caused by software defects is negligible.

Accessories/spare parts

 **Attention:**

- Maintenance measures can only be taken by manufacturer (AMBULANC (SHENZHEN) TECH.CO.,LTD.) or its authorized professionals, such as inspection and overhaul.
- Use of accessories of other manufacturers may result in faults and incompatibility. Please remember the warranty right and responsibility will be invalid in the following cases: not using the accessories recommended in the Manual or the original spare parts.

1 Equipment description

1.1 Purpose

i5 is an Automatic external defibrillator. Simple and direct voice prompt and indication are provided for direct rescue operation. The equipment is light, powered by battery and convenient to carry. i5 aims to treat ventricular fibrillation (VF) and ventricular tachycardia, and these two symptoms are the most common cause for sudden cardiac arrest (SCA). When SCA occurs, the patient's heart will stop beating suddenly, and such situations will suddenly appear in any age group and there is no sign of it. Defibrillation is the only effective treatment for this symptom.

1.2 Indication

To treat people who have cardiac arrest(SCA). The following are the symptoms of SCA:

- No activity or reaction during shaking
- inability to breathe normally

The defibrillator may be used with standard defibrillation pads only on adults and children who are 8 years old or more or who weigh more than 25 kg (55 lbs). The defibrillator may be used on children who are less than 8 years old or weigh less than 25 kg (55 lbs) with Infant/Child Reduced Energy Defibrillation Electrodes.

1.3 Contraindication

Please don't use i5 when the patient has the following signs:

- Able to move and react when shaking
- Able to breathe normally

1.4 Application

i5 for emergency responders, medical staff, or trained non-professional in or outside the hospital.

1.5 User qualification

The user of i5 shall be proved to satisfy the following conditions:

- Received training on equipment.
- Received training on cardiopulmonary resuscitation or other physician-authorized emergency response programs.

2 Installation and setting

Warning:

- Using of accessories not specified in the manual may increase electromagnetic radiation or reduce the electromagnetic immunity of i5. Use the alternative accessories and consumables of Ambulanc or those supplied by its authorized representatives.

2.1 Setting i5

Notes:

Please don't open the sealing electrode container if you don't plan to use it, to prevent drying of AED electrode.

2.2 CPR setting


Tips:

i5 provides voice prompt (1min and 30s, 1min, 40s and 20s) of rest time under the pause time countdown mode till the next cycle of defibrillation (start from ECG analysis).

Under the pause time countdown mode, press the flashing blue "i" within 20s after CPR start to start the CPR voice guide mode.

3 Defibrillation

3.1 CPR guide

 **Warning:**

Please don't use i5 for children below 1 year old.

 **Tips:**

i5 can be used for children at the age of 1-8.

- Please use the pediatric low-energy defibrillator electrode supplied by Ambulanc technology company for children at the age of 1-8 or the weight is less than 25Kg. (Please don't use the pediatric low-energy defibrillator electrode supplied by Ambulanc technology company for adult patients.)
- For the children above 8 years old, American Heart Association (AHA) suggests the application of adult "Life chain" and resuscitation sequence (2010 AHA guide for cardiopulmonary resuscitation and emergency cardiac care).

3.2 Preparation for rescue

Tips:


Please don't waste time on taking off the patient's clothes. Please tear or shear off the patient's clothes when necessary.

 **Warning:**

Check whether the electrode is damaged and whether the gel is dried.

If the electrode is damaged or the gel is dried, please change a new electrode.

3.3 Main rescue sequence

 **Warning:**


- Please don't put the electrode (defibrillation pole) on the implanted pacemaker or cardioverter-defibrillator. Keep the electrode away from the implanted equipment.
- The electrode piece needs to be closely attached to the patient's skin, and there is no gap left. If necessary, use a tool to scrape the patient's chest hair.
- Please don't put the electrode (defibrillation pole) on the transdermal drug patch directly, otherwise, it may result in skin burn.

- During ECG signal collection and analysis, the patient shall keep static and reduce the motion artifact to the maximum.
- When using i5, disconnect the connection between the patient and the medical electrical equipment without the defibrillation parts.
- Keep the electrode far away from the other electrodes or metal parts.
- Prevent the patient's body (such as the head or the naked skin of limbs) and conducting flow (such as gel, blood or saline) from contacting with metal (such as bedstead or stretcher), and residual channels will be provided for defibrillation current.
- Excessive Energy Delivery.

For children less than 8 years of age or 55 lbs (25 kg), use child electrodes. Do not use Adult electrodes; these electrodes do not attenuate the energy.

 **Tips:**

Though i5 is charging after detecting the shockable rhythm, it can collect and analyze the ECG of patient continuously. If the ECG heart rhythm is changed into non-shockable rhythm, i5 will release automatically.

 **Warning:**

After pressing "shock", no one should touch the patient. The defibrillation shock will result in injury of operator or bystander.

3.4 CPR guide

 **Warning:**

- i5 will stop analyzing the patient's ECG during CPR.
- It will recover the ECG analysis automatically after CPR.
- If it is necessary to use other defibrillators for the patient, please disconnect i5 from the patient. Before using other defibrillators, please disconnect the connection between i5 and the patient.

3.5 Data storage

 **Warning:**

- Please don't remove the battery when i5 collects data, otherwise, you will lose the special rescue

data. If it is necessary to remove the battery, please shut down i5 correctly before removal by pressing "Start/shutdown".

- i5 has ≥ 16 G memory capacity for recording ECG and rescue data. If the collected data exceeds the capacity during rescue, it will cover the earlier data automatically.

4 Sanitary treatment

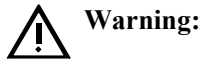


Notes:

- Please don't soak the parts of i5 in the liquid.
- If i5 is soaked in water, please contact with Ambulanc technology company or its authorized representative to provide maintenance service.
- Please prevent liquid from entering the equipment box.
- Please prevent liquid from splashing on the equipment box.
- Please don't use powerful acetone cleaner when cleaning the equipment.
- Please don't use rough materials when cleaning the device (especially the infrared optical filter at IrDA port).
- Please don't disinfect i5.

5 Maintenance

5.1 Battery



- Only the battery recommended and supplied by the manufacturer can be used. Use of battery not recommended and supplied by the manufacturer may result in abnormal operation.

5.2 Battery replacement



- Please don't open or remove the battery case.
- Please prevent battery from contacting with open fire and other heat sources, and don't discard it in the fire.
- Please prevent terminal short circuit of battery.
- Please prevent the battery from serious physical influence, and prevent hammer from knocking.
- If there is leakage or abnormal odor, please keep the battery away from the fire so as to prevent fire of leaked electrolyte.
- Please put battery in the place inaccessible to children.
- If the battery leaks or the leaked liquid enters the eyes, please wash with clean water and consult a doctor.
- Please don't put battery in direct sunlight place or high-temperature area.
- Please prevent battery from contacting with water.
- Put battery in the place far away from direct sunlight, high temperature and humidity.
- Please dispose battery according to the local laws and regulations.
- Please don't put i5 battery in unsafe environment.

5.3 Defibrillator electrode



- Only the electrodes supplied by the manufacturer can be used for supporting i5. Use of

electrodes not specified by the manufacturer may affect the defibrillation effect.

6 Technical parameter

6.1 Management category of medical equipment

| Management category of medical equipment | |
|--|---|
| Category | Class III medical equipment according to Regulation EU 2017/745 |

6.2 Physical specification

| Dimension of complete machine | |
|-------------------------------|------------------|
| Outline dimension | Length: 289mm |
| | Width: 217mm |
| | Height: 91mm |
| Weight | About 2.5Kg |
| Display screen | |
| Type | Color screen TFT |
| Size | 7-inch |
| Resolution | Pixel: 800 x 480 |

7 EMC

7.1 Declaration of magnetic radiation

i5 can be used for the following specific electromagnetic environment, and the user shall use the equipment in the following specified electromagnetic environment.

| Radiation test | Compliance test | Electromagnetic environment guide |
|---|-----------------|---|
| RF radiation (CISPR 11) (GB4824) (GB4824) | First group | i5 only uses the RF energy when running the internal functions. Therefore, the RF radiation is extremely low and has little electromagnetic interference on the electronic equipment nearby. |
| RF radiation (CISPR 11) (GB4824) | Class B | i5 is applicable to all facilities, including the household and the residential public LV supply network directly connected with the house. |
| Harmonic radiation (IEC 61000-3-2) | N/A | |

| | |
|--|-----|
| Voltage fluctuation and twinkle emission (IEC 61000-3-3) | N/A |
|--|-----|


7.2 Declaration of electromagnetic immunity - Requirements for all equipment systems

i5 can be used for the following specific electromagnetic environment, and the user shall use the equipment in the following specified electromagnetic environment.

| Category of immunity | IEC 60601-1 test level | Compliance level | Electromagnetic environment guide |
|--|---|---|---|
| Electrostatic discharge (ESD) (IEC 61000-4-2) | Contact discharge: $\pm 6\text{kV}$ Air discharge: $\pm 8\text{kV}$ | Contact discharge: $\pm 6\text{kV}$ Air discharge: $\pm 8\text{kV}$ | The ground shall be wood, concrete or ceramics. If the ground is paved with composite materials, the relative humidity shall be at least 30%. |
| Electrical fast transient burst (IEC 61000-4-4) | To power cord: $\pm 2\text{kV}$ To long I/O cable: $\pm 1\text{kV}$ | N/A | The power level shall be at least typical commercial or medical environment level. |
| Surge (IEC 61000-4-5) | Differential mode: $\pm 1\text{kV}$ Common mode: $\pm 2\text{kV}$ | N/A | The power level shall be at least typical commercial or medical environment level. |
| Power frequency magnetic field (50/60Hz) (50/60Hz) IEC 61000-4-8 IEC 61000-4-8 | 3A/m | 3A/m 50/60HZ | Power frequency magnetic field shall have the horizontal characteristics of power frequency magnetic field in typical commercial or medical environment. |
| Voltage drop, short interruption and voltage change IEC 61000-4-11 | $< 5\%U_T$ (drop: $> 95\%$, U_T), 0.5 cycle | $< 5\%U_T$ (drop: $> 95\%$, U_T), 0.5 cycle | The power level shall be at least typical commercial or medical environment level. It is suggested to supply power with UPS so that the product can keep operation even during AC power outage. |
| | $40\%U_T$ (60% drop, U_T), 5 cycles; | $40\%U_T$ (60% drop, U_T), 5 cycles; | |
| | $70\%U_T$ (30% drop, U_T), 25 cycles; $< 5\%U_T$ (drop: $> 95\%$, U_T), 5s; | $70\%U_T$ (30% drop, U_T), 25 cycles; $< 5\%U_T$ (drop: $> 95\%$, U_T), 5s; | |

7.3 Declaration on guide and manufacturer - Electromagnetic immunity

The purchaser or user shall use i5 in the following specified electromagnetic environment:

| Immunity test | IEC 60601 test level | Conformance level |
|--|--|-----------------------|
| RF transmission IEC 61000-4-6 RF radiation IEC 61000-4-3 | 3V (effective value) 150kHz-80MHz (except the medical engineering frequency band ^a) | 3V (effective value) |
| | 10V (effective value) 150kHz-80MHz (the medical engineering frequency band ^a) | 10V (effective value) |
| | 10V/m 80 MHz-2.5 GHz | 30V/m |
| Electromagnetic environment guide | | |
| <p>The portable and mobile RF communication equipment shall not be used near i5 than the recommended isolation distance, including cable. The distance is calculated according to the formula of transmitter frequency.</p> <p>Recommended isolation distance:</p> $d = \left[\frac{3.5}{V1} \right] \sqrt{P}$ $d = \left[\frac{12}{E1} \right] \sqrt{P} \quad 80 \text{ MHz} \sim 800 \text{ MHz}$ $d = \left[\frac{12}{V2} \right] \sqrt{P}$ $d = \left[\frac{23}{E1} \right] \sqrt{P} \quad 800 \text{ MHz} \sim 2.5 \text{ GHz}$ <p>Wherein:</p> <p><i>P</i> -According to the maximum rated output power of transmitter manufactured by the transmitter manufacturer (unit: W);</p> <p><i>d</i>-Recommended isolation distance (unit: m).</p> <p>The field intensity of fixed RF transmitter is determined according to the survey of electromagnetic field, and it should be lower than the conformance level in each frequency range.</p> <p>Interference may appear near the equipment marked in the following symbols:</p>  | | |
| <p>Note 1: For the frequency of 80MHz and 800MHz, use the formula in higher frequency band.</p> <p>Note 2: The guide may not be applicable to all situations, and the electromagnetic propagation is affected by the building, object and human absorption and reflection.</p> | | |

- The medical engineering frequency band between 150kHz and 80MHz refers to 6.765MHz-6.795MHz, 13.553MHz-13.567MHz, 26.957MHz-27.283MHz and 40.66MHz-40.70MHz.
- The conformance level on the medical engineering frequency band (150kHz-80MHz)

and the frequency of 80MHz-2.5GHz is used for reducing the probability of interference caused by mobile/portable communication device when being taken to the patient area occasionally. Therefore, additional factor 10/3 is used for calculating the recommended isolation distance of transmitter in the frequency range.

c. Fixed transmitter, such as: radio (honeycomb/wireless) telephone and ground mobile radio base station, amateur radio, amplitude and FM radio broadcast and TV broadcast, and the field intensity cannot be predicated accurately theoretically. To evaluate the electromagnetic environment of fixed RF transmitter, consider the survey of electromagnetic place. If the field intensity of i5 is higher than the RF conformance level, observe i5 to verify whether it can work normally. If normal performance is observed, the supplementary measures may be necessary, for example, readjust the direction or position of i5.

d. The field intensity shall be less than 3V/m in the whole frequency range of 150kHz-80MHz.

7.4 Recommended isolation distance

i5 shall be used in the electromagnetic environment where the RF radiation interference is controlled. According to the maximum rated output power of communication equipment, the purchaser or user can prevent electromagnetic interference by keeping the following recommended minimum distance between the portable and mobile RF communication equipment (transmitter) and i5.

| Recommended isolation distance between the portable and mobile RF and i5 anfangcommunication equipment and i5 | | | | |
|--|---|--|------------------------------------|--|
| Rated maximum output power W of transmitter | Isolation distance /m corresponds to different frequencies of transmitter | | | |
| | 150kHz-80MHz (Except the medical engineering frequency band) $d = 1.17\sqrt{P}$ | 50kHz-80MHz (Medical engineering frequency band) $d = 1.2\sqrt{P}$ | 80MHz-800 MHz $d = 0.4\sqrt{P}$ | 800 MHz-2.5 GHz $d = 0.767\sqrt{P}$ |
| 0.01 | 0.12 | 0.12 | 0.04 | 0.08 |
| 0.1 | 0.38 | 0.38 | 0.13 | 0.24 |
| 1 | 1.2 | 1.20 | 0.40 | 0.77 |
| 10 | 3.8 | 3.80 | 1.30 | 2.40 |
| 100 | 12.00 | 12.00 | 4.00 | 7.70 |
| <p>Note 1: For the frequency of 80MHz and 800MHz, use the formula in higher frequency band.</p> <p>Note 2: The medical engineering frequency band between 150kHz and 80MHz refers to</p> | | | | |

6.765MHz-6.795MHz, 13.553MHz-13.567MHz, 26.957MHz-27.283MHz and 40.66MHz-40.70MHz.

Note 3:

Additional factor 10/3 is used for calculating the recommended isolation distance of transmitter on the medical engineering frequency band (150kHz-80MHz) and in the frequency range of 80MHz-2.5GHz, so as to reduce the probability of interference caused by portable/mobile RF communication equipment when being taken to the patient area.

Note 4:

The guides may not be suitable for all situations. Electromagnetic propagation is affected by the building, object and human absorption and reflection.

For the maximum rated output power of transmitter not listed in the above table, the recommended isolation distance d (unit: m) can be determined by the formula in the frequency column of transmitter, and "P" (unit: W) here is the maximum rated output power of transmitter provided by the transmitter manufacturer.

**Notes:**

- Please fully consider the electromagnetic compatibility of the equipment installation and using environment according to the above guide;
- Though the equipment or other equipment near the device meets the emission requirement of CISPR, it may still interfere with the equipment, so please verify whether the equipment can work normally before using.
- Using of unapproved parts on the equipment may reduce the electromagnetic immunity of system or increase the electromagnetic emission of equipment.

8 Storage and transportation

Warning:

When the storage condition exceeds the working environment requirement and the storage state is converted into use condition, use the product after placing it in standard environment for more than 8h.

Amoul[®] 深圳市安保科技有限公司
Ambulanc(Shenzhen)Tech.Co.,Ltd.



Address: 3F, 5# Building C, Skyworth Innovation Valley, Tangtou No.1 Road, Shiyan Street, Bao'an District, Shenzhen
City Postal code: 518108
Tel.: +86-75526072210 Fax: +86-75523016012
Website: <http://www.amoulmed.com> Email: manager@amoulmed.com