Mini Ray Dental X-Ray Device Instruction Manual

Please carefully read this manual before operating.

Guilin Woodpecker Medical Instrument Co., Ltd.

Contents

Preface

Thank you for purchasing the Dental X-ray Device produced by Guilin Woodpecker Medical Instrument Co., Ltd. Woodpecker is a high-tech enterprise researching, developing, producing and selling dental products, and it owns a sound quality control system. Please read the full text of the instruction manual carefully to ensure that you can use the equipment correctly and safely.

1. Product introduction

1.1 Product introduction

This equipment is a portable Dental X-Ray Device, which is used to photograph teeth and obtain the Dental image information.

Features of this equipment:

1) Small, light, easy for doctors to carry;

2) High quality and efficient user interface, making shooting easier;

3) Low radiation and high efficiency, providing good user experience;

1.2 Model

Mini Ray

1.3 Configuration

Equipment configuration is detailed in packing list.

1.4 Software title and version

Mini Ray V1

1.5 Structure and components

This product is mainly composed of X-Ray tube, control system, exposure handbrake, battery, power adapter and beam limiting equipment.

1.6 Scope of application

This product is used for X-Ray photography of teeth to obtain images for clinical diagnosis.

1.7 Contraindications

Pregnant women and young children should not be exposed to the environment for a long time when the product works.

1.8 Equipment safety classification

1. Type of operation mode: Continuous operation with intermittent loading

2. Type of protection against electric shock: Class II equipment

3. Degree of protection against harmful ingress of water: Ordinary equipment (IPX0)

4. Degree of safety application in the presence of a flammable anesthetic

mixture with air, oxygen, or nitrous oxide: Equipment can't be used in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.

1.9 Primary technical parameters

1. Power adapter input: ~100-240V 50/60Hz 800mA
2. Internal power supply: DC 10.8V
3. Types of radiation: X-ray
4. Electric power:
Maximum power: 0.14kw(70kV, 2mA)
Nominal electric power: 0.14kw(70kV, 2mA, 0.1s)
5. Tube voltage: tube voltage output is fixed at 70kV, error ±10%
6. Tube current: tube current output is fixed at 2mA, error ±20%
7. Loading time: the exposure loading time adjustment range is 0.02s ~ 2s, the grade is adjustable, the grade is selected according to R'10 numerical system; with deviation ±10% or ±20ms.
8. X-ray tube
a) X-ray tube model: KL11-0.4-70;
b) Focal spot: 0.4mm;
c) Target angle: 12°;
d) Total filtration: 1.5mmAl/70 kV;
e) Additional filtration: 0.8mmAl/70 kV
9. Distance from focus to skin: 20.5±0.5cm
10. Output radiation field: Φ5.9cm±0.1cm
11. Product specifications
Dimension: 338mm×112mm×247mm
Weight: 2.2KG
12. Battery specification:10.8V/2500mAh ×3S

1.10 Operation environment

Environment temperature: 10°C ~ 40°C
Relative humidity: 30% ~ 75%
Atmospheric pressure: 70kPa ~ 106kPa

1.11 Transportation and storage condition

Storage temperature: -20°C ~ 55°C
Transportation temperature: -20°C ~ 55°C
Relative humidity: 10% ~ 93%
Atmospheric pressure: 70kPa ~ 106kPa

2. Product installation and function description

2.1 Schematic diagram of the whole machine

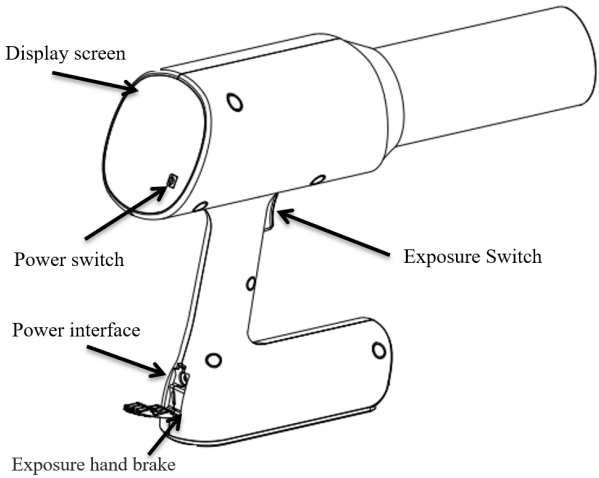


Figure 1 Schematic diagram of Dental X-Ray Device

2.2 Accessories installation

2.2.1 Installation area

Take out all the parts from the packing box. Be careful not to drop or damage the equipment.

2.2.2 Power adapter installation

Take out the power adapter and power connector from the packing box and connect them as shown in the figure.

[Note] Only the power adapter and power connector provided with the equipment can be used

2.2.3 Exposure handbrake

Figure 3 Exposure hand brake

Note: ① wired connection mode: Long press the switch of exposure hand brake, the exposure starts light on.

2.3 Functions of the control panel

See Table 1 for the functions of the icons on the control panel.

Figure 4 Control panel

Table 1

S/ N	Icons	Function
1		Lock indication. Press and hold the "▲" and "▼" buttons at the same time to unlock/lock the machine. The machine cannot be operated in the locked state.
2		On/off button
3		Selection of tooth position : selection of tooth position shot.
4		When you click the Calibration button, the displayed Angle returns to zero
5		Selection of equipment: equipment of image receptor for Digital Intraoral X-ray Imaging System, film and image plate scanner (IP image plate)

6		equipment of image receptor for Digital Intraoral X-ray Imaging System
7		image plate scanner (IP image plate)
8		film
9		Selection of human body: The patients shot include adults/ children
10		children
11		adults
12		Selection of tooth position : selection of tooth position shot.
13		Incisors
14		Canines
15		Molars/Premolars
16		Molar
17		Bitewing
18		Low power identifier/Battery power/ Charge identifier
19		Angle display
20		Display of X-ray exposure time

21		Indication of X-ray exposure status
22		Fault warning indication
23		Device cooling countdown
24		Connection mode: Wired connection mode of the exposure handbrake

2.4 Description of Effective Occupied Area

The operator should designate any valid occupied area in the place of use, the floor size should not be less than 60cm×60cm, and the height should not be less than 200cm.

3. Operation instruction

The user of the medical device must comply with the requirements of the relevant operating regulations and relevant regulations of the medical department, and is limited to the use of trained doctors or technicians.

3.1 Preparation before shooting

1. Turn on the Dental X-ray power switch, the LCD screen lights up, accompanied by a beeper "di" sound prompt;
2. Press  at the same time to unlock the device, and after the unlocking is completed, the  icon turns off, and the device can be operated.
3. Select the human body, tooth position and the equipment mode;
4. Adjust the exposure time. The system has a default exposure time, or adjust the shooting time as required;
5. Prepare film or image plate scanner (IP image plate) or Digital Intraoral X-ray Imaging System (sensor).

3.2 Shooting images

1. A high-quality equipment of image receptor (film or IP image plate or sensor) in a sealed protective bag will be put in the patient's mouth, parallel to the longitudinal axis of the tooth. The effective surface of the equipment of image receptor is facing the tooth;
2. Move the Dental X-Ray Device to the teeth on the patient's face and adjust the position of the equipment and the patient according to the angle displayed on the screen;
3. Ensure that the light cone of the equipment of image receptor is

perpendicular to the position of the IP image plate. Just short press the exposure switch to enter the exposure preparation interface. Long press the exposure switch again within the 60s countdown to start the exposure. During the exposure process, hold down the exposure switch until the buzzer sound stops and the exposure ends.

4. When the exposure is finished and the image is taken successfully, remove the equipment of image receptor from the patient's mouth.

3.3 Shooting angle

3.3.1 Photograph angle reference values

Keep the patient in the correct sitting position and adjust the correct shooting angle of the Dental X-Ray Device. The photograph angle reference values are as follows:

Tooth position	X - ray tilt direction	Angle of tilt
Maxillary incisor position	Downtilt	+42°
Maxillary single canine position	Downtilt	+45°
Maxillary bicuspid and first molar	Downtilt	+30°
Maxillary second and third molars	Downtilt	+28°
Mandibular incisor position	Up	-15°
Mandibular single canine position	Up	-18°~ -20°
Mandibular bicuspid and first molar	Up	-10°
Mandibular second and third molars	Up	-5°

3.4 Software Operation Instructions

This chapter introduces the front panel of the Dental X-Ray Device, which visually displays the operation interface, so that the operator can better use the machine.

3.4.1 Mode function

When different modes of the equipment, tooth positions and human bodies are selected, the control panel automatically displays the exposure time.

1. Equipment Mode

Click the device selection icon indicated by the arrow, as shown in Figure 5, and select the desired image receiver device, as shown in Figure 6. From top to bottom are sensor, scanner, and film. After successful selection, the box will frame the icon corresponding to the device position.

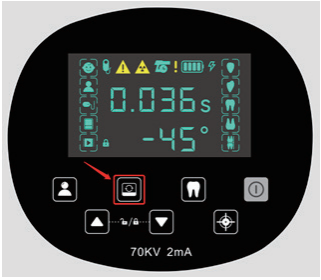


Figure 5

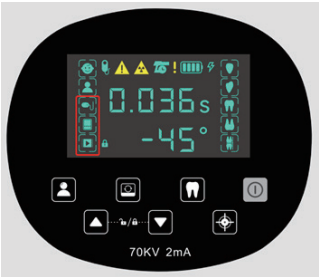


Figure 6

2. Human Body Mode

After selecting the equipment mode, select human body mode. Click the human body selection icon indicated by the arrow in Figure 7 to switch back and forth between adult and child modes. Different human body models can be selected according to the age of the patient. After the selection is successful, the human body model area will display the corresponding options.

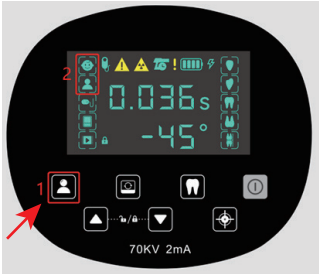


Figure 7

Table 2 Human Body Mode

Icons	Mode
	Adult Mode
	Child Mode

3. Tooth Position Mode

Click the tooth position selection icon indicated at arrow 1 in FIG. 8, you can select the tooth type to be photographed at 2 points shown in FIG. 8 on the interface, and the border of the corresponding tooth area will light up.

After successful selection, the box will frame the icon corresponding to the tooth position.

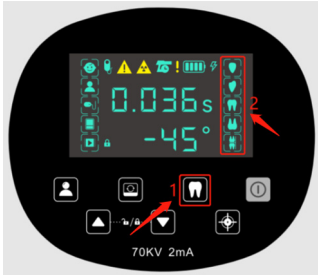


Figure 8

3.4.2 Setting of exposure time

If it is required to change the exposure time, click the "▲" and "▼" button and the exposure time can be adjusted from 0.02s to 2s.The time cannot be adjusted when the machine is locked.

3.4.3 Exposure

1.After pressing the exposure button and releasing it, enter the 60-second exposure countdown interface, and long press the exposure button before the end of the exposure countdown to expose it, and the different states of the device screen exposure icon are shown in Table 3.

2.After entering the 60-second exposure countdown interface, long press the exposure button on the exposure handbrake to expose, and the exposure indicator of the exposure handbrake will light up when exposed, and the different states of the device screen exposure icon are shown in Table 3.

Table 3

Exposure icon	State
	Exposure not ready: Rest and wait after each exposure
	X-ray exposure status indication (Not exposed: the icon is off ; Exposed: The icon is on)

3.5 Charging and battery maintenance

3.5.1 Charging

1. Connect one end of the charger to the charging port of the equipment and the other end to the power supply of the network (100-240V, 50/60Hz);
2. When charging, the equipment displays the charging icon, and when charging is finished, the battery is charged fully;
3. Disconnect the power supply and the charger when the charging is complete;

4. A single charge takes about 2 hours.
3.5.2 Battery maintenance
1. When the machine is not in use, the power switch should be turned off to save electrical energy;
2. Please use the original charger to charge;
3. Separate the battery from the equipment when it is not used for a long time, and charge it once every three months;
4. Keep the electrical energy more than 20%;
5. High position and single charge over 12 hours should be avoided;
6. Avoid exposing the battery to high temperature or fire, and avoid direct sunlight when storing the battery.
7. If you find that the battery life cannot meet the needs of use, please contact the manufacturer and authorized dealers in time to replace the new battery.Notes
3.6 The Dental X-Ray Device shall never be used in the presence of flammable anesthetic gas, pure oxygen or nitrogen oxide to avoid any risk of explosion.
3.7 Patients and operators are advised to wear radiation protector when taking X films; and the distance between the operators and Dental X-Ray Device components should be ≥2m.
3.8 Dental X-Ray Device and its accessories have been designed and developed to ensure the highest level of safety and performance. The use of accessories not provided by the original manufacturer may pose a risk to patients, users or the equipment itself;
3.9 The equipment complies with the IEC 60601-1 standard. Only peripheral equipment conforming to IEC 60950-1 can be connected to it so as to avoid any risk of failure of the Dental X-Ray Device.
3.10 Our company is specialized in the production of medical equipment. We are responsible for the safety of the equipment only when the maintenance, repair and modification of the machine are carried out by our company or by our authorized dealers, and the replacement parts are our Woodpecker accessories and operated according to the operating instructions.
3.11 Other safety information can be found in each chapter of this instruction manual. Please read the whole manual carefully.
3.12 In order to ensure safe and correct operation and use of the Dental X-Ray Device, it is quite important to use the charger provided by the equipment. The power line of the Dental X-Ray Device can only be replaced by the same type of line.
3.13 Due to the electromagnetic compatibility of X-ray generator, other

equipment nearby may be affected during the use. There is a risk of malfunction of nearby equipment.

3.14 Due to electromagnetic compatibility, the use of other equipment may interfere with the our product.

4. Troubleshooting

This device can prompt five known faults, when an exception occurs, the screen displays the following figure fault code characters, buzzer alarm prompt:

Fault	Reason	Solution
E01	Exposure button is not pressed all the time during exposure	Press the exposure button once and use it after the warning disappears
E02	The temperature of equipment is too high	Equipment is cooled down before use
E03	The voltage of equipment is too high	Restart the machine, if the fault still exists, please contact the manufacturer
E04	The device current is too large	Restart the machine, if the fault still exists, please contact the manufacturer
E05	The battery is low	Plug in the power adapter and charge it before use

Note: If the device cannot be started after exposure shutdown or after long storage, try to connect the adapter for charging activation.

If the above methods can not eliminate the fault, please contact the distributor to return the equipment to the manufacturer for handling. Do not try to open the casing of this equipment and repair it yourself.

5. Maintain maintenance

Before the first use of this equipment, a complete cleaning procedure must be followed. The Dental X-Ray Device should be disconnected from the power supply before cleaning and disinfection each time.

5.1 Cleaning

a) Wipe the shell of the product and the head of the X-ray machine with non-abrasive materials (gauze and soft cloth) dipped with detergent, and pay attention not to allow liquid to flow into the equipment;

b) Dry the equipment with a clean, dry and soft cloth.

5.2 maintainance

a) Immerse a piece of clean dry gauze in 70% -80% ethanol disinfectant, and then wipe the disinfected parts twice with soaked dry gauze;

b) Dry the equipment naturally or with a clean, dry and soft cloth.

Caution: Do not use the following methods of disinfection

a) Do not use organic solvents or corrosive cleaning products to clean the Dental X-Ray Device;

b) Do not spray detergent directly on the Dental X-Ray Device;

c) Do not use organic solvent or corrosive disinfectant to disinfect the Dental X-Ray Device;

d) Do not spray disinfectant directly on the Dental X-Ray Device;

6. X-ray tube characteristics

Filament voltage: 2.4-3.0V
Maximum filament current: 2.9A
Nominal anode input power: 600W (0.1s)
Anode heat capacity: 4500J
Maximum anode heat dissipation: 110W
Overall dimension and wiring: as shown in Figure 12
Maximum rated value: as shown in Figure 13
Thermal characteristics: see Figure 14
Filament and emission characteristics: see Figure 15

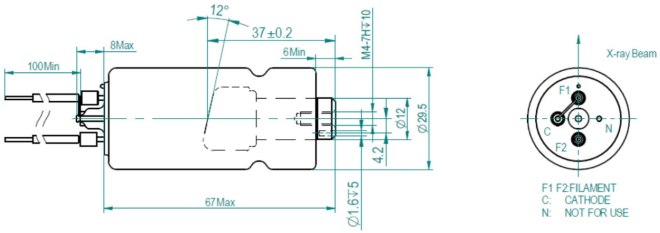


Figure 12 Mechanical dimension machine wiring

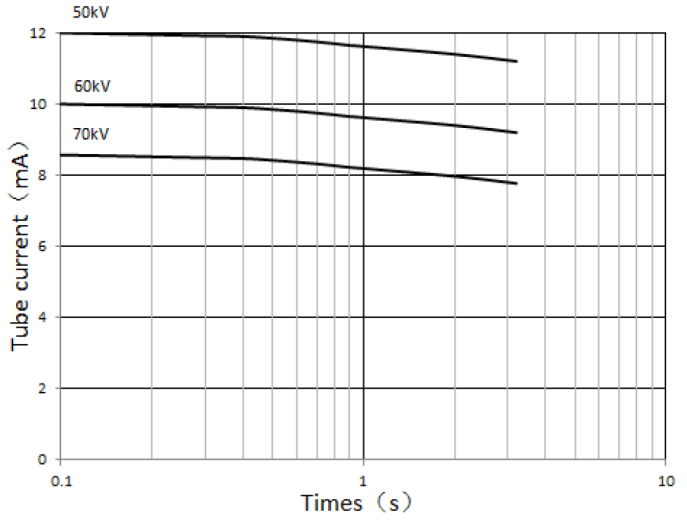


Figure 13 Maximum rating diagram

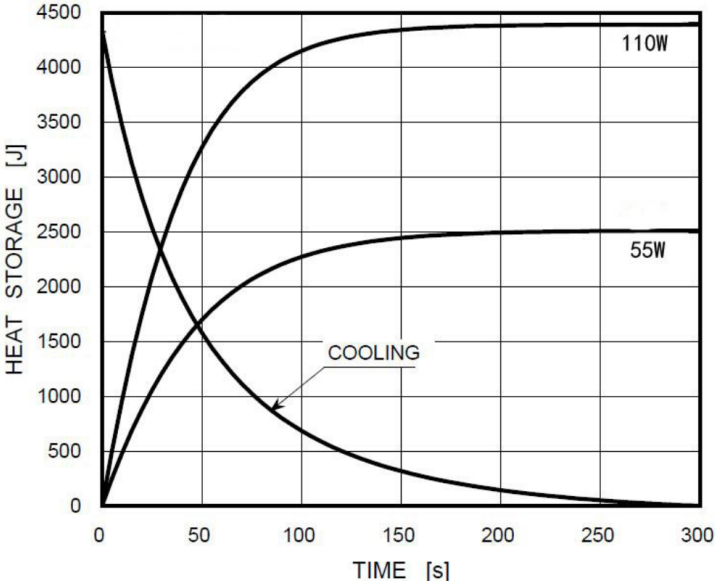


Figure 14 X-ray tube anode heating and cooling curve

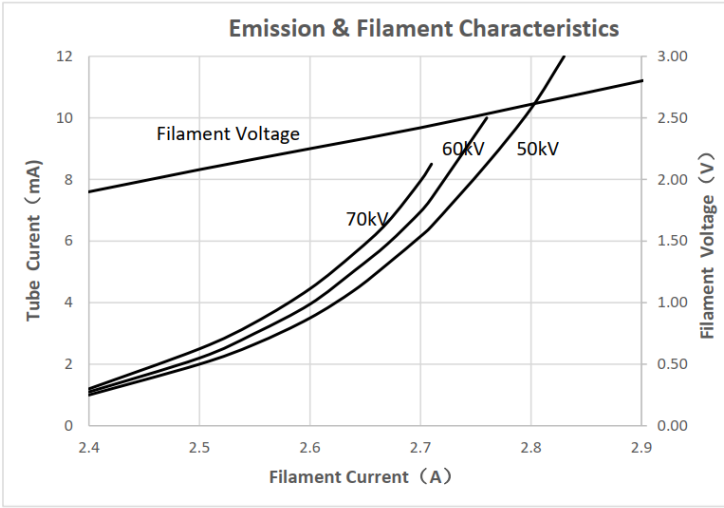


Figure 15 Filament and emission characteristic curve

8. Storage, maintenance and transportation

8.1 Storage/ maintenance

1) The equipment shall be handled with care, away from the hypocenter, and shall be installed or stored in a cool, dry and ventilated place.
2) Do not store with toxic, corrosive, flammable and explosive substances.
3) When the equipment is not used for a long time, turn off the power switch and unplug the power plug.
4) The product shall be stored in an environment with relative humidity of 10% -93%, atmospheric pressure of 70kPa ~ 106kPa and temperature of -20 °C ~ + 55 °C.
5) Inspect the equipment for scratches, wear and other mechanical scratches or damage after each use.

8.2 Transportation

1) Avoid excessive shock and vibration during transportation, and handle with care to avoid inversion;
2) It shall not be mixed with dangerous goods during transportation;
3) Avoid sun exposure or rain and snow immersion during transportation;

9. Environment protection

This equipment can't be disposed of as household waste. Therefore,

this equipment should be placed in a special recycling place for waste electronic medical equipment. For more detailed information about equipment disposal and recycling, please contact the Dental equipment dealer.

Part	Toxic or harmful substances or elements					
	(Pb)	(Hg)	(Cd)	(Cr6+)	(PBB)	(PBDE)
Power adapter	○	○	○	○	○	○
Main unit	○	○	○	○	○	○
Mechanical elements, including bolts, nuts, washers, etc.	○	○	○	○	○	○

○: Indicates that the content of the toxic substance in all homogeneous materials of the part is below the limit requirement stipulated in SJ/T-11363-2006 “Marking for Control of Pollution Caused by Electronic Information Products”.

×: Indicates that the content of the toxic substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in SJ/T-11363-2006.

(This product meets EU RoHS environmental protection requirements; there is currently no mature technology in the world to replace or reduce the content of lead in electronic ceramics, optical glass, steel and copper alloy.) According to the “Administrative Measures on the Restriction of the Use of Hazardous Substances in Electric and Electronic Products” and the “Regulations on the Administration of the Recycling and Disposal of waste Electrical Appliances and Electronic Products” and related standards, please observe the safety and precautions of the products, and please recycle or dispose this product according to the methods in local laws and regulations after use.

10. After-sales service

Since the date of sale, if the equipment fails to work normally due to quality problems, our company will be responsible for the maintenance based on the warranty card. Please refer to the warranty card for the warranty period and scope. This product does not contain self-maintained parts, and the maintenance of this equipment should be carried out by designated professionals or special repair shops.

11. Electromagnetic compatibility

For this equipment, special precautions regarding electromagnetic compatibility (EMC) must be taken, and the installation and use must be performed according to the electromagnetic compatibility information specified in this manual. Portable and mobile radio frequency communication equipment may affect this equipment. The following cables must be used to meet electromagnetic emission and anti-interference requirements:

Name	Cable length	Shielded or not	Remark
Power adapter cable	1.5m	No	/
Connection line of exposure handbrake	8.0m	No	/

In addition to cables (transducers) sold as spare parts of internal components, the use of accessories and cables (transducers) other than those specified may result in increased emission or reduced immunity of the equipment or system.

The equipment or system should not be used close to or stacked with other equipment. If it is required to be used in this way, it should be observed to verify that it can operate normally under the configuration used.

11.1 Guidance and manufacturer's declaration-electromagnetic emission

Guidance and manufacturer's declaration-electromagnetic emission		
The Dental X-Ray Device is intended for the use in the electromagnetic environment specified below. The customer or the user should assure that it is used in such an electromagnetic environment.		
Emission test	Compliance	Electromagnetic environment-guidance
RF emission CISPR 11	Group 1	The Dental X-Ray Device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference to nearby electronic equipment.
RF emission CISPR 11	Group B	The Dental X-Ray Device is suitable for used in all establishments, including domestic establishments and establishments directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emission lEC 61000-3-2	Group A	
Voltage fluctuation/ flicker emission lEC 61000-3-2	Complied	

11.2 Guidance and manufacturer's declaration-electromagnetic immunity

Guidance and manufacturer's declaration-electromagnetic immunity			
The Dental X-Ray Device is intended for the use in the electromagnetic environment specified below. The customer or the user should assure that it is used in such an electromagnetic environment.			
Immunity test	Test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge lEC 61000-4-2	±6kV contact discharge ±8kV air discharge	±6kV contact discharge ±8kV air discharge	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2kV for power supply lines ±1kV for input/output lines	±2kV for power supply lines ±1kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-4	±1kV DMV ±2kV CMV	±1kV DMV	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT.) for 0.5 cycle 40 % UT (60% dip in UT.) for 5 cycles 70 % UT (30% dip in UT.) for 25 cycles 95% dip in UT.) for 5s	<5% UT (>95% dip in UT.) for 0.5 cycle 40 % UT (60% dip in UT.) for 5cycles 70 % UT (30% dip in UT.) for 25cycles 95% dip in UT.) for 5s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Dental X-Ray Device requires continued operation during power mains interruptions, it is recommended that the Dental X-Ray Device be powered from an uninterruptible power supply or a battery.
Power frequency magnetic field (50Hz) lEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: U_T refers to the AC mains voltage prior to application of the test level.

11.3 Guidance and manufacturer's declaration-electromagnetic immunity

Guidance and manufacturer's declaration-electromagnetic immunity			
The Dental X-Ray Device is intended for the use in the electromagnetic environment specified below. The customer or the user should assure that it is used in such an environment.			
Immunity test	Test level	Compliance level	Electromagnetic environment - guidance
Conducted RF lEC 61000-4-6 Radiated RF lEC 61000-4-3	3Vrms 150kHz ~80MHz 3V/m 80MHz ~2.5GHz	3Vrms 3V/m	Portable and mobile RF communication equipment should be used not closer to any part of the Dental X-Ray Device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.2\sqrt{P}$ 150kHz~80MHz $d = 1.2\sqrt{P}$ 80MHz~800MHz $d = 2.3\sqrt{P}$ 800MHz~2.5GHz where "P" is the maximum output rated power of the transmitter provided by the transmitter manufacturer in watts (W) and "d" is the recommended separation distance in meters (m). Field strengths of b fixed RF transmitters is determined by an electromagnetic site survey of a, and frequency range b should be less than the compliance level in each. Interference may occurs in the vicinity of equipment marked with the following symbol: 

NOTE1: At 80 MHz and 800 MHz, the formula of higher frequency range is applied. NOTE2: These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by the absorption and emission from buildings, objects and human bodies.
a. Field strengths of a fixed transmitters, such as base stations for radio (cellular/ cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Dental X-Ray Device is used exceeds the applicable RF compliance level above, the Dental X-Ray Device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Dental X-Ray Device. b. In the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

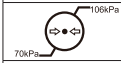
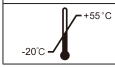
11.4 Recommended separation distances between RF communications equipment and Dental X-Ray Device

Recommended separation distances between portable and mobile RF communications equipment and the Dental X-Ray Device			
The Dental X-Ray Device is intended for use in electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Dental X-Ray Device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Dental X-Ray Device as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter /W	Separation distance according to frequency of transmitter/ m		
	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 rated maximum output power of transmitters not listed in the above table, the recommended separation distance “d” (m) can be determined by the formula in the corresponding transmitter frequency column. Where “P” is the maximum output rated power of the transmitter in watts (W) provided by the transmitter manufacturer.
NOTE 1: At 80 MHz and 800 MHz, the formula of higher frequency range is applied.
NOTE 2: These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by the absorption and emission from buildings, objects and human bodies.

⚠ Notes:
Without the explicit consent of Woodpecker, unauthorized changes or modifications to the equipment may cause electromagnetic compatibility problems of this equipment or other equipment.

12. Symbol instruction

	Manufacturer		Serial number
	Warning		Item number
	Class II equipment		Ordinary equipment
	Avoid sun exposure		Please take care to prevent the equipment from tipping
	Danger! High voltage		Electrostatic Discharge Sensitive Device (ESDS)
	Date of manufacture		X-ray, beware of ionizing radiation
	Products comply with WEEE directive		Follow the manual
	Humidity limit for storage: 10% ~ 93%		
	Atmospheric pressure for storage: 70kPa ~ 106kPa		
	Temperature limit for storage: -20°C ~ +55°C		

13 Statement

Please refer to the product packaging label for the production date, service life: 10 years.

Dental X-Ray Device Warranty Card

Name of Customer		(I) For Distributor
Address Details		
Postal Code		
Tel		
Model		
Unit No.		
Purchase Date		
Contact Person		
Date	Maintenance Record	Repairer

Guilin Woodpecker Medical Instrument Co.,Ltd.
Information Industrial Park,Guilin National High-Tech Zone,Guilin,Guangxi,541004 P.R.China
Sales Dept: +86-773-5873196/2350599
After-sales Service Dept: 0773-5827898
E-mail: woodpecker4@glwoodpecker.com
Website: http://www.glwoodpecker.com

Distributor:

Seal

Dental X-Ray Device Warranty Card

Name of Customer		(II) Return to Manufacturer
Address Details		
Postal Code		
Tel		
Model		
Unit No.		
Purchase Date		
Contact Person		
Date	Maintenance Record	Repairer

Guilin Woodpecker Medical Instrument Co.,Ltd.
Information Industrial Park,Guilin National High-Tech Zone,Guilin,Guangxi,541004 P.R.China
Sales Dept: +86-773-5873196/2350599
After-sales Service Dept: 0773-5827898
E-mail: woodpecker4@glwoodpecker.com
Website: http://www.glwoodpecker.com

Distributor:

Seal

Warranty Instruction

Ⅰ Period validity:

Since the date of sale, with a warranty card ,this product enjoys 1 years warranty for the main unit.

Ⅱ Range of warranty:

Within the warranty period of validity, we are responsible for any troubles caused by quality problems or products technique and structure.

Ⅲ The following are beyond our warranty:

1.The damage caused by disobeying the operation instruction or lack of the needed condition.

2.The damage caused by unsuitable operation or disassembly without authorization.

3.The damage caused by unadvisable transportation or preservation.

4.There isn't the seal of distributor or the warranty card isn't filled in completed.

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