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Installation manual of AA6688 Operating Table



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1 Introduction

Attention！

This Instruction is ensure for the users use the Operating Table correctly.

Please read the manual carefully before installation and operation; Strictly observe the precautions in the instruction manual, otherwise it may cause injury to patients or operators.

1.1 Expected Use

It is used for multi-position support and operation of patients during medical procedures such as examinations and simple treatments performed by medical staff in the consultation room and emergency room. It is not used as a comprehensive dental treatment or for rehabilitation purposes.

Suitable range: Support the patients during checking and treating.

1.2 Service Life: 10 years

1.3 Category

a. Operating Table classification by electric shock prevention type : II type；
b. Operating Table classified by the degree of protection against electric shock: B type application part;
c. Operating Table classified by the degree of protection against liquid ingress ： IPX4；
d. Operating Table classified according to the degree of safety when using flammable anesthetic gas mixed with air or flammable anesthetic gas mixed with oxygen or nitrous oxide: Equipment used in the presence of flammable anesthetic gas;
e. Operating Table classified by operation mode: intermittent operation (continuous operation 2 minutes, rest 18 minutes (10%)).

1.4 Running Conditions

Running in the below environment：

Ambient temperature：+5℃～＋40℃

Humidity：≤80%

Atmospherical pressure：860hPa～1060hPa

1.5 Specifications List

Power	AC110-240V 50/60Hz
Output power	420VA
Load capacity	135kg
Highest chair position	1020mm
Lowest chair position	620mm
Backrest adjustment angle range	0～85°
Feet adjustment angle range	0～80°
Headrest telescoping length	150mm
Head oblique angle	-30°
Feet support telescoping length	180mm
Net weight of operating table	140kg
Gross weight of operating table	163kg

2 Notice for Use

2.1 Notice for Use

Please read the instruction manual before operating this operating table. This manual is written to ensure that the user is competent in the information required to operate this operating table and its accessories. It is recommended that the instruction manual be stored in an easily accessible location for easy viewing. If needed, we can provide additional training.

All warnings and cautions in this manual should be strictly observed. Failure to do so may result in injury to the patient or operator. The warning words in this manual have been marked as possible hazards, and if you do not follow the correct procedures and conditions, you may cause serious injury or death. The precautions in this manual have marked possible hazards. Failure to follow correct procedures and conditions may result in equipment damage or failure.

2.2 Warning

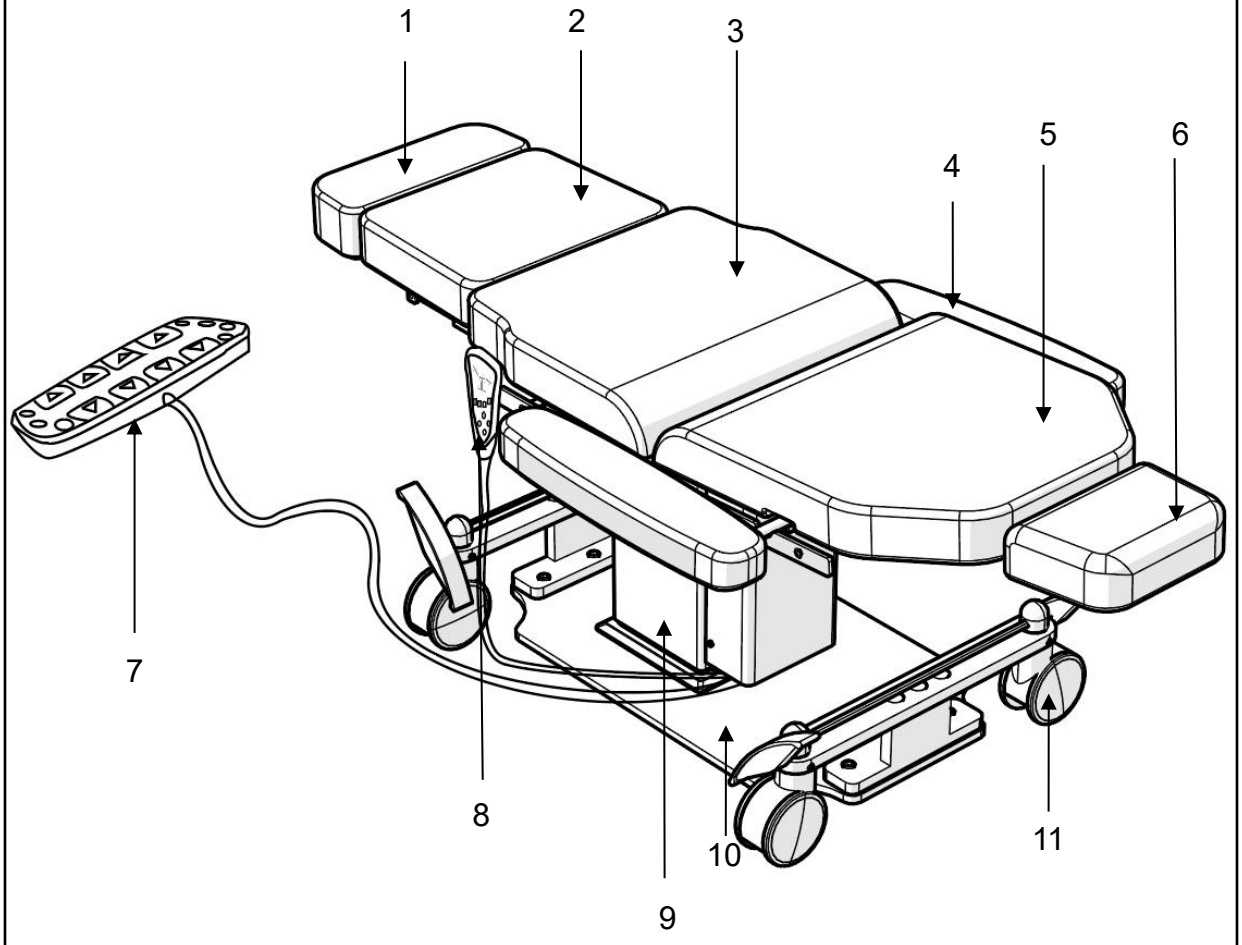
Please read this manual carefully before installing and using an electric operating table.

- It is recommended that the product installation process be performed by two people.
- It is recommended to place the product on a clean, level floor or platform.
- Do not allow heat or open flames to approach the operating table cushions.
- Do not use this electric operating table if flammable gas is present.
- The working safety load of this electric operating table is 170Kg. Includes weight for patient, electric operating table cushion and additional accessories.
- Do not use accessories not designed or approved for this operating table.
- Before operating this operating table, ensure that the patient is in a safe position to avoid injury.
- Before moving the operating table, make sure the operating table is at a proper height and the operating table frame is raised.
- It is important to ensure that all hospital and power cables do not become entangled with the mechanical parts of the operating table.
- In the absence of a caregiver nearby, in order to reduce the injuries to patients when they get into or out of bed or fall or roll on the bed, the operating table is placed at the lowest height.
- Do not run the remote control or power cord across the mattress surface of the bed. When the bed is not connected to a power source, strap the power cord to the fixture on the bed.
- When moving the operating table, pay attention that the power cord cannot be squeezed, otherwise it may cause safety risks.
- Before operating this operating table, ensure that the patient is in a safe position to avoid injury.
- Can only be used by one patient. This operating table is designed to be used by one person. If used incorrectly, the bed will be unstable.
- It is recommended to use this product under the guidance of a doctor.
- Do not place objects higher than 60 ° C on the surface of the bed. It may cause surface damage.
- When moving the operating table, make sure that there are no instruments or other objects on the bed.
- It is forbidden to stand or sit on the backboard and footboard to avoid danger.

When lifting the bed surface, pay attention to observe whether the vertical translation of the bed surface hits people or other instruments and objects.

3 Composition

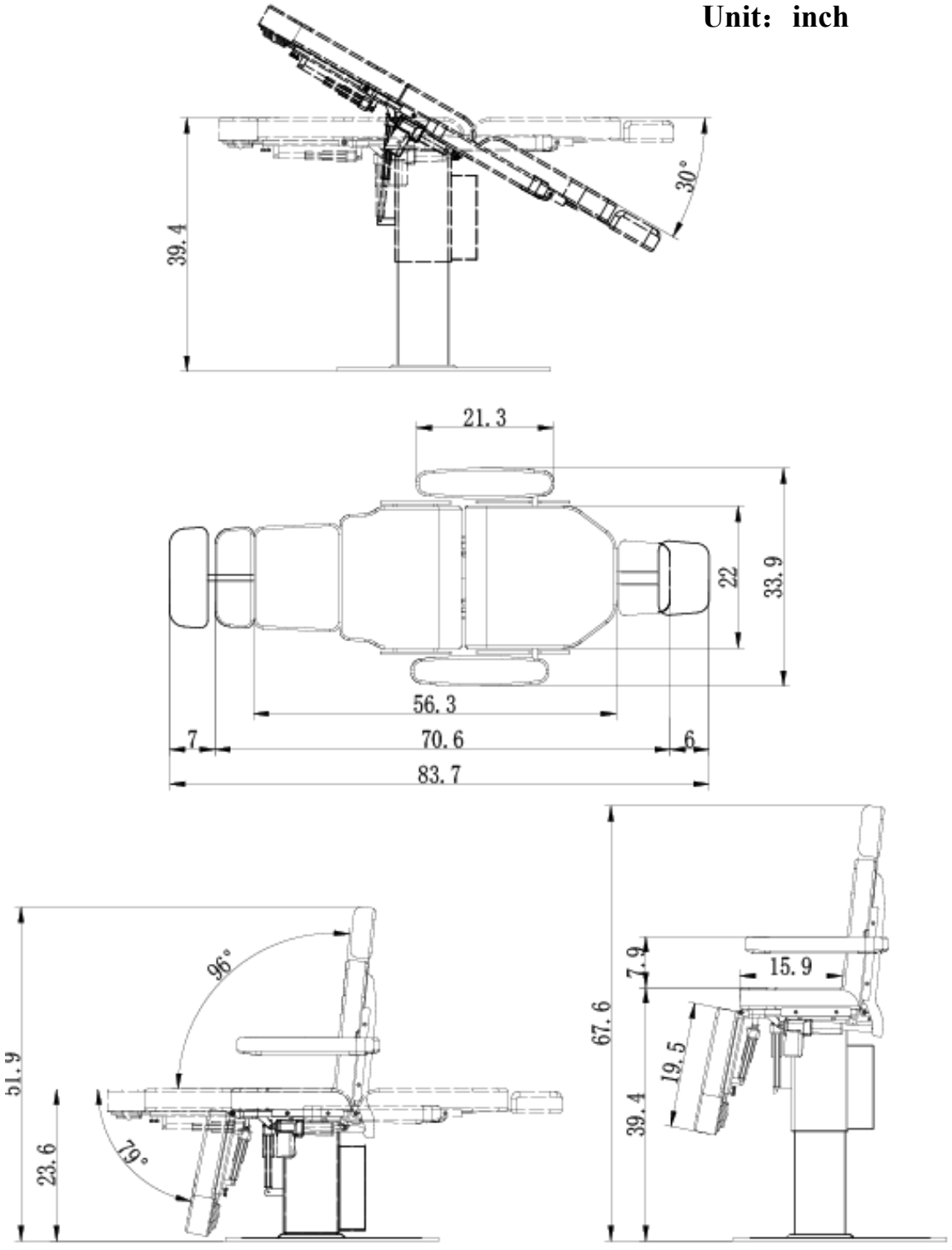
3.1 Component Introduction



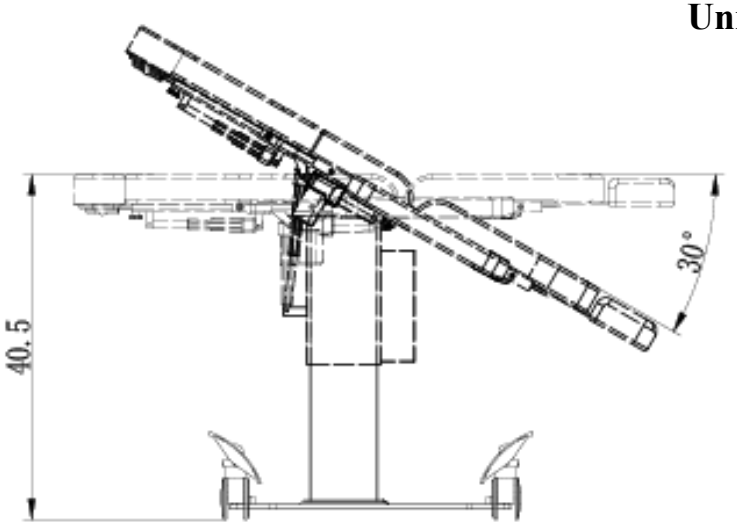
No.	Component	No.	Component
1	Extended feet support cushion	7	Foot controller
2	Feet support cushion	8	Hand-held controller
3	Cushion	9	Lifting seat
4	Armrest	10	Base
5	Backrest	11	Castor
6	Headrest		

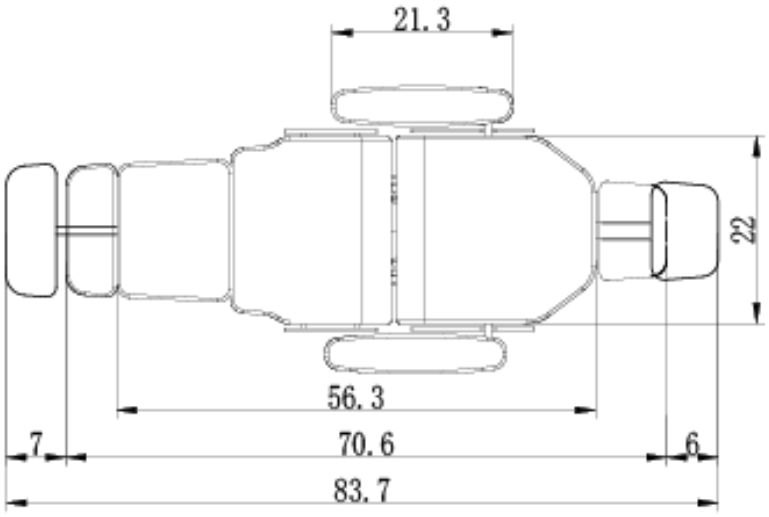
3.2 Dimensions

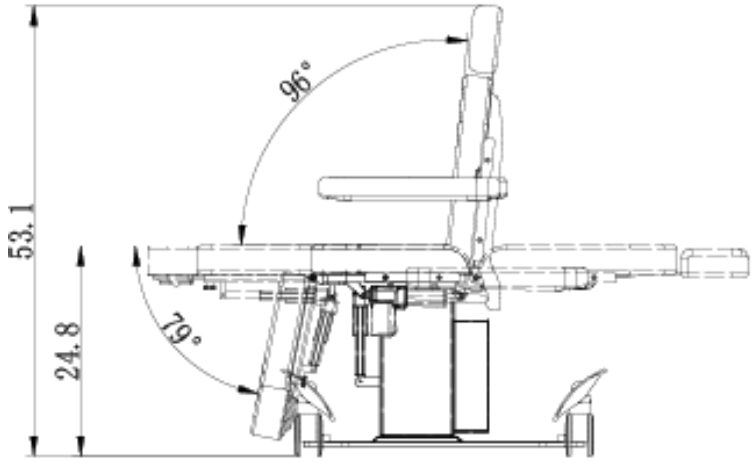
Unit：inch

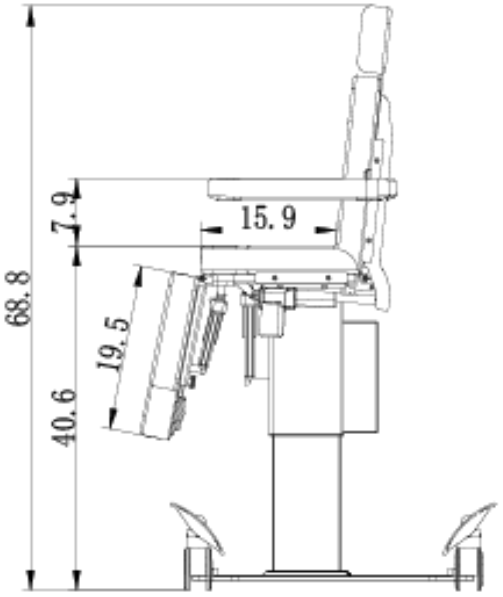


Unit：inch

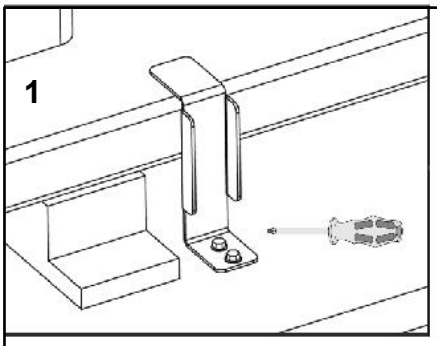


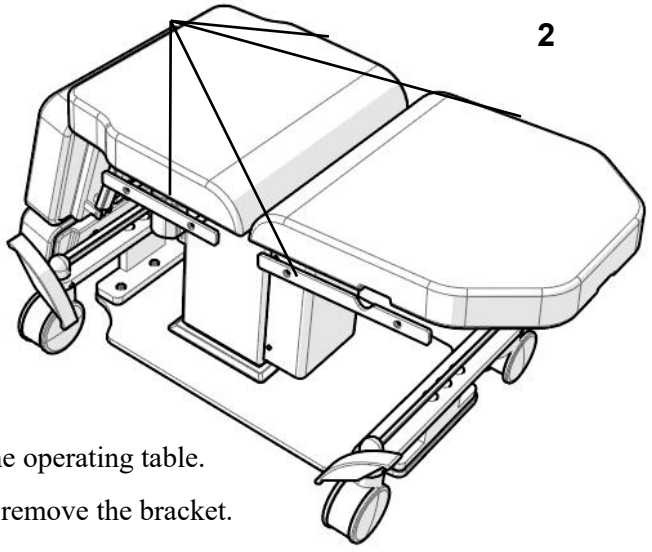






4 Installation Steps





1. Remove the packing box

Unpack all packages and protective items of the operating table.

Loosen 8 screws of the base fixed bracket and remove the bracket.

2. Placing the operating table

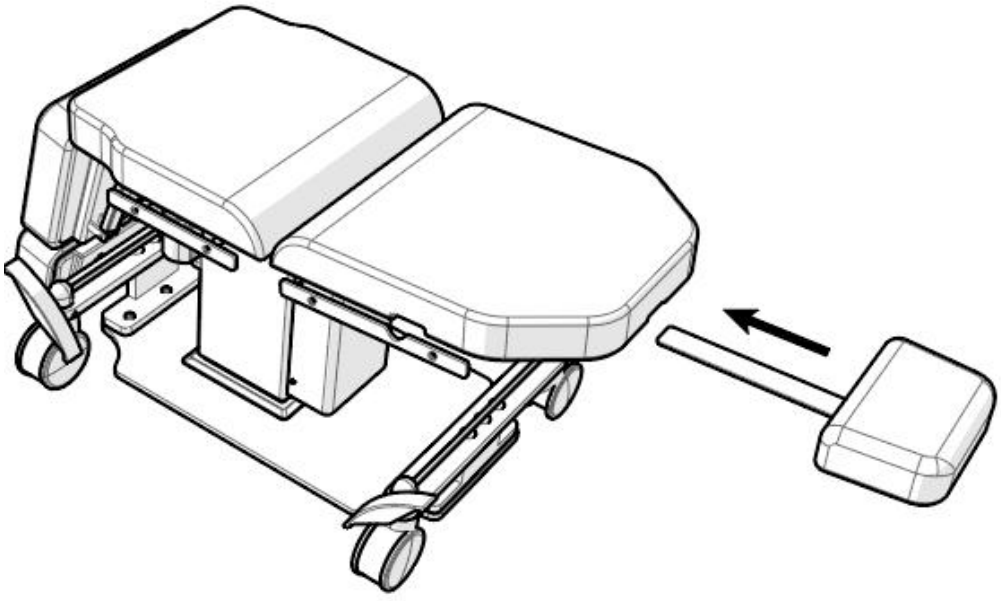
Remove the packing of the operating table.

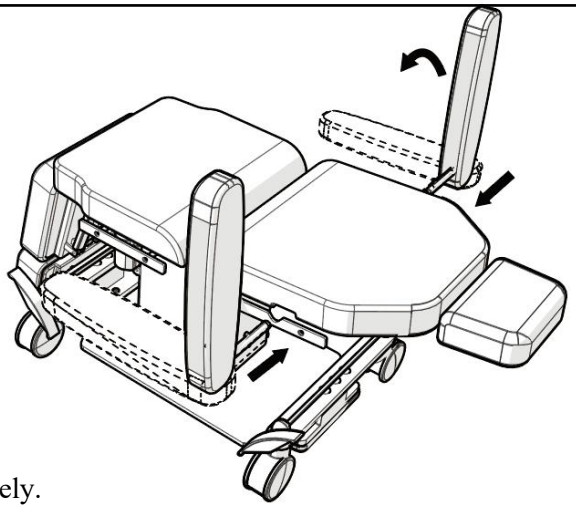
Grasp the force point.

Lift the operating table and place it on the flat ground.

3. Install the headrest

Insert the rod of headrest to the hole.



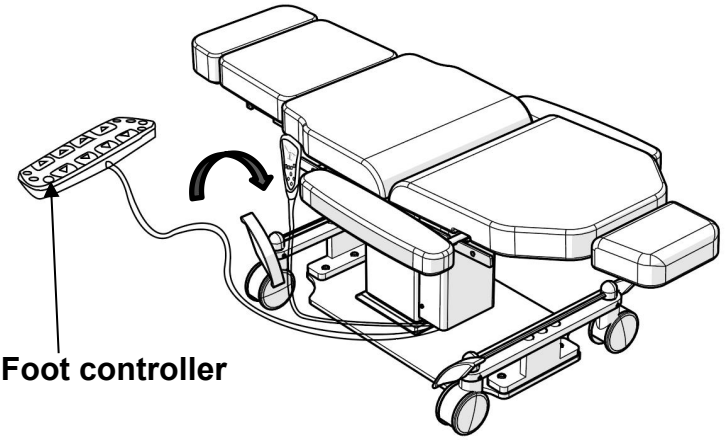


4.Install the armrest

Put the left and right supporting hands upright respectively.

Inserted the fixed column to the mounting hole of the backrest.

Rotate and put down after it is inserted in place.



5. Place the controller

Hang the Manual Operation Panel to the pole near armrest.

Put the foot controller to the suitable place.

Connect the power and test various functions of Operating Table.

6.Move the operating table.

Step on the green end of the pedal at both ends, and the caster is in a movable state.

Push the chair to a suitable position in the treatment room.

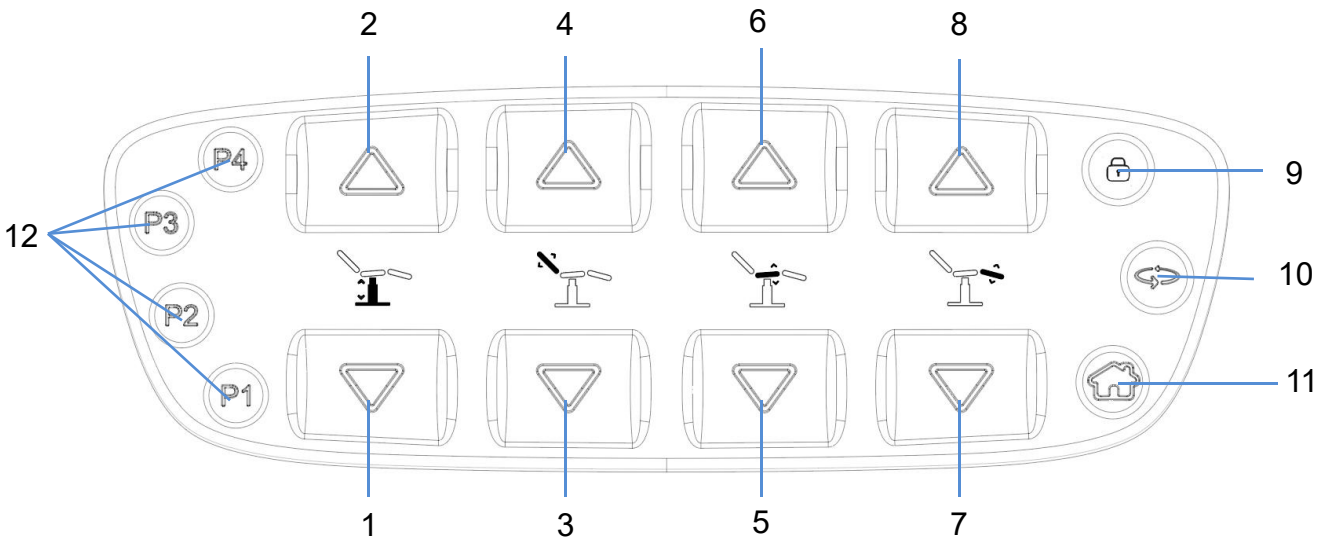
Step down the red end of the pedal at both ends to make the caster in a locked state and the operating table is fixed.

Notice

In order to fix the operating table completely, the casters at both ends must be locked.

5 Control Function

5.1 Foot Control



1	Operating Table down	7	Cushion down
2	Operating Table up	8	Cushion up
3	Backrest down	9	Stop
4	Backrest up	10	Program
5	Feet support cushion down	11	Reset
6	Feet support cushion up	12	Programmable positions（P1/P2/P3/P4）

5.2 Foot Control Function

1. Operating Table down：control Operating Table down



When press the button（not let go）, M1 motor that controls the Operating Table up and down contracting， Operating Table down；when loose the button, M1 motor will stop。

2. Operating Table up：control Operating Table up



When press the button（not let go）, M1 motor that controls the Operating Table up and down reaching out, Operating Table up; when loose the button, M1 motor will stop.

3. Backrest down：control backrest down



When press the button（not let go）, M2 motor that controls the backrest contracting, backrest down；when loose the button，M2 motor will stop.

4. Backrest up：control backrest up



When press the button（not let go）, M2 motor that controls the backrest reaching out, backrest up；when loose the button, M2 motor will stop.

5. Foot support cushion down：control foot support cushion down



When press the button（not let go）, M3 motor that controls the foot support cushion contracting，foot support cushion down; when loose the button，M3 motor will stop.

6. Foot support cushion up：control foot support cushion up



When press the button（not let go）, M3 motor that controls the foot support cushion reaching out，foot support cushion up; when loose the button，M3 motor will stop.

7. Cushion down : control cushion down



When press the button（not let go）, M4 motor that controls the cushion contracting, cushion down；when loose the button, M4 motor will stop.

8. Cushion up : control cushion up



When press the button（not let go）, M4 motor that controls the cushion reaching out, cushion up；when loose the button, M4 motor will stop.

Press the up or down button(not let go) on the foot pedal, Manual Operation Panel's green light flashes，loose the button green light on。green light is always on when the motor not working。Green light flashes when the motor running. At the same time only a indicator light is on.

9. Stop：



Press the button，all the program is stop

Stop：press this button, buzzer beeps once，all the button function of panel and pedal is useless.

Recover：press this button again， buzzer beeps twice， all the button function of panel and pedal is normal;

Stop status：when the panel and pedal is at stop status，press the other button， buzzer beeps three times，indicate the panel and pedal is at stop status.

10. Program：program setting button，setting the P1\P2\P3\P4 position button:

Example：setting “P1” position button



①Step 1，setting the M1、M2、M3、M4 motor to the position you want；

②Step 2 ， long press this button 3 seconds， buzzer beeps once ， into memory mode；

③Step 3，press the P1 button， buzzer beeps twice ，confirm the memory position

11. Reset：press this button, operating table goes down to the lowest position:



①Press this button, M1 motor contracting to the shortest travel distance, M2 motor reaching out to the longest travel distance, M3 motor contracting to the shortest travel distance, M4 motor contracting to the shortest travel distance.

②4 motors moves separately.

③4 motors move to the position then stop.

④when at the reset program，press the other button，reset program stops. If want to go back to the reset program, press the reset button again.

12. Memory position： 4 memory position:



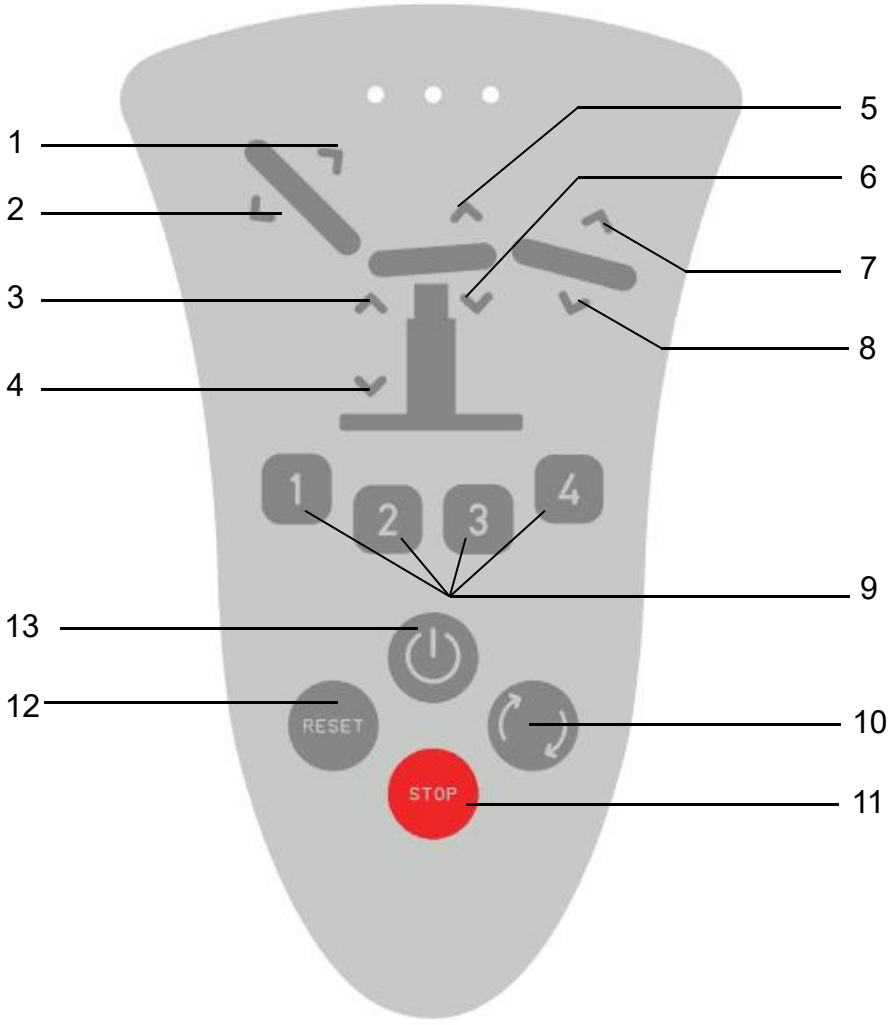
①Press the P1、P2、P3、P4 button，the operating table moves to the position that pre-set

②P1、P2、P3、P4 can support 4 motors move separately.

③Press the button，the pre-set motors move separately.

④When in the memory position program，press the other button，the program stops, If want to go back to the memory position you want, press the reset button again.

5.3 Manual Operation Panel



1	Backrest up	8	Feet support cushion down
2	Backrest down	9	Programmable positions（P1/P2/P3/P4）
3	Operating Table up	10	Program
4	Operating Table down	11	Stop
5	Cushion up	12	Reset
6	Cushion down	13	Power off
7	Feet support cushion up		

5.4 Manual Operation Panel Function

1. Backrest up：control backrest up



When press the button（not let go）, M2 motor that controls the backrest reaching out, backrest up；when loose the button，M2 motor will stop.

2. backrest down：control backrest down



When press the button（not let go）,green light flashes,M2 motor that controls the backrest contracting， backrest down；when loose the button，green light on,M2 motor will stop.

3. Operating Table up：control Operating Table up



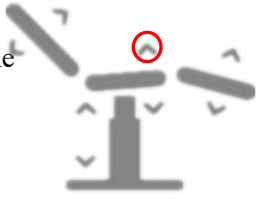
When press the button（not let go）, green light flashes,M1 motor that controls the operating table reaching out, operating table up；when loose the button，green light on,M1 motor will stop

4. Operating Table down：control Operating Table down



When press the button（not let go）， green light flashes,M1 motor that controls the operating table contracting，operating table down；when loose the button，green light on,M1 motor will stop.

5. Cushion up : control cushion up



When press the button（not let go）, green light flashes,M4 motor that controls the cushion reaching out， cushion up；when loose the button，green light on,M4 motor will stop

6. Cushion down : control cushion down



When press the button（not let go）, green light flashes,M4 motor that controls the cushion contracting, cushion down；when loose the button, green light on M4 motor will stop

7. Foot support cushion up：control foot support cushion up



When press the button（not let go）, green light flashes, M3 motor that controls the foot support cushion reaching out, foot support cushion up； when loose the button，green light on M3 motor will stop

8. Foot support cushion down：control foot support cushion down



When press the button（not let go）, green light flashes, M3 motor that controls the foot support cushion contracting, foot support cushion down； when loose the button, green light on M3 motor will stop

Green light is always on when the motor not working。Green light flashes when the motor running。At the same time only a indicator light is on

9. Memory position： 4 memory position



①Press the P1、P2、P3、P4 button，the operating table moves to the position that pre-set.

②P1、P2、P3、P4 can support 4 motors move separately.

③Press the button，the pre-set motors move separately.

④When in the memory position program, press the other button, the program stops, If want to go back to the memory position you want, press the reset button again.

Press the button，green light flashes，all the motor to the pre-set position，motor stop, green light on.

10. Program：program setting button，setting the P1\P2\P3\P4 position button



Example：setting “P1” position button

①Step 1，setting the M1, M2, M3, M4 motor to the position you want；

②Step 2 ，long press this button 3 seconds, buzzer beeps once, into memory mode；

③Step 3，press the P1 button, buzzer beeps twice, confirm the memory position

Press the button into setting status, blue light on, finish the setting，blue light off，green light on.



11、 Press the button，all the program is stop

Stop：press this button, buzzer beeps once, all the button function of panel and pedal is useless.

Recover：press this button again, buzzer beeps twice, all the button function of panel and pedal is normal.

Stop status：when the panel and pedal is at stop status, press the other button, buzzer beeps three times，indicate the panel and pedal is at stop status.

Press “STOP” button, all the button of panel and pedal is useless，red light on，press the button again， all the button of panel and pedal is working。Red light off，green light on。power is on, stop status red light on



12、Reset：press this button, operating table goes down to the lowest position

①Press this button, M1 motor contracting to the shortest travel distance, M2 motor reaching out to the longest travel distance, M3 motor contracting to the shortest travel distance, M4 motor contracting to the shortest travel distance.

②4 motors moves separately.

③4 motors move to the position then stop.

④When at the reset program，press the other button，reset program stops. If want to go back to the reset program，press the reset button again.

When the motor running, green light flashes，after the reset, green light on，during the program and press the other button，reset function stop, green light on.



13、Power off：control TC21 box on and off

①Long press this button 3 seconds, TC21 box power off, buzzer beeps 2 seconds, the whole system is power off, stop working.

② Long press this button 3 seconds again，TC1 box power on， buzzer beeps 2 seconds , the whole system is working.

Press the button into power, all the lights are off, long press the button again, green light on, power off, all the lights are off.

6 Cleaning and Disinfection

Warning：please make sure the power is off before cleaning

Cleaning:

The purpose of cleaning is to remove the stains and dust on the surface of the operating table primarily. It is recommended to clean the surface of operating table with the wet soft cloth and a mild detergent (or the hospital's recommended cleaning solution) once a day after use . with extra attention to areas that may hide dirt or dust.

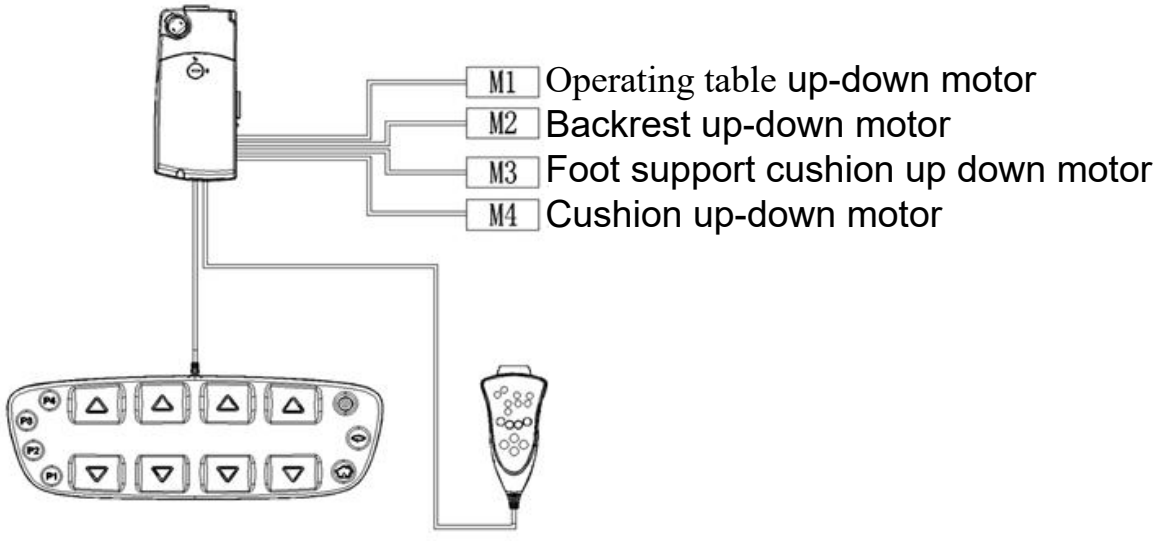
Disinfection:

The purpose of disinfection is to remove potentially infectious materials primarily, such as body fluids or used operating tables in patients with known infectious diseases. It is recommended that that 3% hydrogen peroxide should be used after each use to wipe and disinfect the metal parts and plastic parts of the operating table, as well as the leather such as headrest, cushion and armrest.

Precautions for disinfection

It is strictly forbidden to use alcohol, fortified glutaraldehyde disinfectant, 84 disinfectant, benzalkonium bromide-containing disinfectant, benzsolol ammonium propanol-containing disinfectant and various acid and alkaline disinfectants for disinfection. Chromatic aberration, cracking and aging are not covered by the normal operating table warranty.

7 Circuit Diagram



8 EMC Attention

Attention：

- The Operating Table complies with the relevant electromagnetic compatibility requirements of IEC60601-1-2 and IEC60601-2-46 standards.
- Users should install and use according to the electromagnetic compatibility information provided in the accompanying documents.
- Portable and mobile RF communication equipment may affect the performance of Operating Tables, and avoid strong electromagnetic interference when using, such as near mobile phones, microwave ovens, etc .;
- Guidance and manufacturer's declaration are detailed in the annex.

Warning：

•The Operating Table should not be used close to or stacked with other equipment. If it must be used close to or stacked, it should be observed to verify that it can operate normally in its used configuration.

•Except for cables sold by the manufacturer of Operating Tables as spare parts for internal components, the use of accessories and cables other than those specified may result in increased emissions or reduced immunity of electric operating table.

Attachment：

Statement of Manufacturer—Electromagnetic Launch		
Operating Table is designed for electro magnetic environment described below. Be sure to apply.		
Launch Test	Conformance	Electromagnetic Environment
CISPR11 RF Launch	1 Group	Operating Table utilizes RF energy for its built-in functions only. Therefore, its RF transmit is very low. There is a low possibility that the equipment will affect other electronic devices in its vicinity.
CISPR11 RF Launch	B Class	Operating Table is suitable for all facilities, including household facilities, and can be directly connected to low-voltage public residential power supply.
IEC 61000-3-2 Harmonic Launch	A Class	
Voltage Fluctuation /Scintillation Launch IEC 61000-3-3	Qualified	

Statement of Manufacturer— Electromagnetic Immunity			
Operating Table is designed for electromagnetic environment described below. Be sure to apply.			
Electromagnetic Immunity Test	**IEC6061 Test Level**	**Test Level Conformance**	**Electromagnetic Environment**
Electrostatic Launch IEC 61000-4-2	±6 kV Contact Discharge±8 kV Air Discharge	±6 contact Discharge±8 kV Air Discharge	The floor should be of wood, concrete, or tile. If the floor is covered by synthetic materials, the relative humidity should be at least 30%.
Electrical Fast Transient Burst IEC 61000-4-4	±2 kV to power wire	±2 kV to power wire	The power supply should reach the standard of typical commercial or hospital power supply.
Surge IEC 61000-4-5	±1 kV wire to wire±2 kV ground to ground	±1 kV wire to wire±2 kV ground to ground	The power supply should reach the standard of typical commercial or hospital power supply.
Voltage sags, short interruptions and voltage changes in power input line IEC 61000-4-11	< 5% U_t， lasting 0.5 Cycle (At U_t>95% Sag)40 %U_t， lasting 5 Cycles (At U_t,60% Sag)70% U_t， lasting 25 Cycles (At U_t,30% Sag) < 5% U_t， lasting 5s (At U_t,>95% Sag)	< 5% U_t,lasting 0.5 Cycle (At U_t,>95% Sag)40 %U_t， lasting 5 cycles (At U_t,60% Sag)70% U_t， lasting 25 cycles (At U_t， 30% Sag) < 5% U_t， lasting 5s (At U_t,>95% Sag)	The power supply should reach the standard of typical commercial or hospital power supply.If required to use the equipment during power blackout, it is recommended to use battery or uninterruptible power supply.
Power Frequency Magnetic Field (50/60 Hz) IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic field should be at the same level with PFMF in typical commercial or hospital environment.
Note:U_t refers to the AC network voltage before the test.			

Statement of Manufacturer— Electromagnetic Immunity			
Operating Table is designed for electromagnetic environment described below. Be sure to apply.			
Electromagnetic Immunity Test	**IEC6061 Test Level**	**Test Level Conformance**	**Electromagnetic Environment**
Radio Frequency Conduction Radio IEC 61000-4-6 Frequency Radiation IEC 61000-4-3	3V(Effective Value) 150kHz～80MHz 3V/m80MHz～5GHz	3V(Effective Value) 3V/m	The isolation distance between portable and mobile RF communications devices and any part of the Extraoral Dentistry Suction System, including cables, should not be less than recommended isolation distance. The recommended isolation distance is calculated by a formula corresponding to the frequency of the transmitter. Recommended isolation distance formula: $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P}$ 80 MHz～800 MHz $d = 1.2\sqrt{P}$ 800 MHz～2.5 GHz P—based on the transmitter's maximum rated output power provided by transmitter manufacturer, in watts (W); d—Recommended isolation distance, in meters (m). The field strength of the fixed RF transmitter is determined by surveying the electromagnetic field a, and in each frequency range should be lower than the compliance level. Interference may occur near the equipment marked with the following symbol. 
Note 1: At 80MHz and 800MHz frequencies, apply higher frequency band formula.Note 2: These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and human bodies.			
The field strengths of fixed transmitters, such as: base stations for wireless (cellular/cordless) phones and terrestrial mobile radios, amateur radios, AM and FM radio broadcasts, and television broadcasts, cannot be accurately predicted theoretically. To assess the electromagnetic environment of fixed RF transmitters, surveys of electromagnetic sites should be considered. If the measured field strength of the Operating Table is higher than the applicable RF compliance level above, the Operating Table should be observed to verify that it can operate normally. If abnormal performance is observed, supplementary measures may be necessary, such as reorienting or repositioning the Operating Table.In the entire frequency range of 150kHz to 80MHz, the field strength should be lower than 3V/ m.			

Recommended isolation distance between portable and mobile RF communication devices and Operating Table

Operating Table are intended for use in electromagnetic environments where RF radiation disturbances are controlled. Depending on the maximum rated output power of the communication device, the purchaser or user can prevent electromagnetic interference by maintaining the minimum isolation distance between portable and mobile RF communication devices (transmitters) and Operating Table as recommended below.

Transmitter's rated maximum output power	Isolation distance corresponding to different frequencies of the transmitter/m		
	150kHz～80MHz $d=1.2\sqrt{P}$	80MHz～800MHz $d=1.2\sqrt{P}$	80MHz～2.5GHz $d=1.2\sqrt{P}$
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 the transmitter not listed in the table above, the recommended isolation distance d is in meters (m), which can be determined by the formula in the corresponding transmitter frequency column, where P is the Maximum rated output power of the unit, in watts (W), provided by the transmitter manufacturer. Note 1: At 80MHz and 800MHz frequency points, the formula of the higher frequency band is applied. Note 2: These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and human bodies.

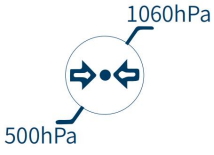
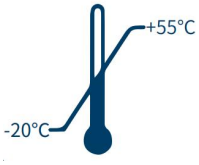
9 Transportation and Storage Conditions

- Ambient temperature：－20℃∽+55℃
- Relative humidity：10～93%,avoid moisture condensations.
- Big steam pressure range：500 ～1060hpa 。

10 Common Faults and Troubleshooting Measures

Fault phenomenon	Cause	Solutions
1.The operating table not working	1. The plug is not inserted and the power supply is not connected; 2. The switch on the operating table was not turned on; 3. The fuse is broken.	1. Plug in the plug and turn on the power supply; 2. Check whether the switch is on; 3. Replace the fuse.
2、Some functions not working	1. Controller button failure; 2. The motor is damaged.	1. Replace the controller; 2. Replace the motor.
3、The operating table not moving	1. The pedal of caster is not fully stepped on; 2. Casters damaged.	1. Check whether the caster pedal is fully opened; 2. Replace casters.

11 Explanation of Graphics, Symbols, Abbreviations

	Keep dry		Store in Indoor area
	Notice and warnings		Type B application
	Upward		No rolling
	Serial number		Refer to the manual
	Take with care		Grounding protection
	Manufacturer		Date of manufacture
	Storage limited humidity		Storage limited pressure
			Storage limited temperature

We reserve the right to make any alterations which may be due to technical improvements.



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