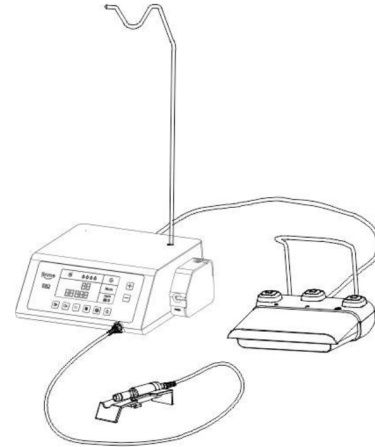


Instruction for use

**Dental Electrical Motor Systems for dental surgical implant procedure
(Control Unit, foot controller, motor with cable, handpiece holder)**

E80, E82



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1. Symbols

Symbols in the instruction for use



ATTENTION!



WARNING!



**General explanations, without risk
to persons or objects**



**Sterilizable up to the
temperature specified**



JINME Service



Protective earth



Consult instructions for use



**Do not dispose of the product
as ordinary waste**



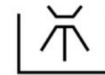
Earth



Alarm for high temperature



Manufacturer



**Washer-Disinfector for thermal
disinfection**



On/Off



Foot control



Reverse



Irrigation



Procedure



Forward/reverse rotation



Electric fuse



CE mark

Symbols on the packaging



Fragile, handle with care



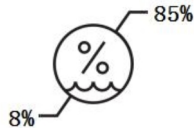
This way up



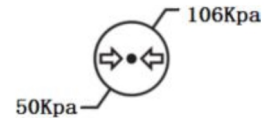
Keep dry



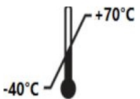
Symbol for recyclable



Humidity limitation



Atmospheric pressure limitation



Temperature limitation



Validity date



Manufacturing date



Refer to User Manual



EU authorized representative



Serial number



CE mark

2.Introduction



For your safety and the safety of your patients

These instructions explain how to use your product. However, we must also warn against possible hazardous situations. Your safety, the safety of your team and, of course, the safety of your patients, and of paramount importance to us.



It is therefore essentially that you read the safety notes on pages 9 to 11.

Intended use

This equipment is consist of main machine (with cooling device), motor (with cable and optional light source), foot control, pothook for foot control, support rod, handpiece holder, S shape hook, power cord, etc. It is applicable to dental implant surgery.

Improper use might spoil this equipment and thereby cause danger to patients, users and the third party.

Place for product use

This product is suitable for hospitals, big or small clinics.

User's qualification

This equipment is limited to physicians qualified personnel used in dentistry, oral surgery and so on.

Scope of application

This equipment is applicable for dental implant surgery.

Contraindications in patients

- **Patients with heart disease, blood diseases, hypertension, diabetes, renal dysfunction, endocrine system diseases, severe osteoporosis, malignant tumors, mental disorders, and high levels of chemotherapy, hormones, anticoagulants and other bone metabolism and integration of drugs that have an impact, dental implant surgery can not be performed.**
- **Local gingival inflammation and nearby tooth inflammation can affect the integration of the root implant, and even lead to the failure of surgery.**
- **Any symptom inappropriate for dental surgery confirmed by dentists.**



Responsibility of the manufacturer

The manufacturer can only accept responsibility for the safety, reliability and performance of the equipment when it is used in compliance with the following directions:

- **The equipment must be used in accordance with these Instructions for use.**
- **The equipment has no components that can be repaired by the user. Assembly, modifications or repairs must only be undertaken by an authorized JINME service partner.**
- **The electrical installation at the premises must comply with the regulation of GB 9706.15-2008 (Medical Electrical Equipment) or with the regulations applicable in your country.**
- **Unauthorized opening of the equipment invalidates all claims under warranty and any other claims.**

3. Electromagnetic compatibility [EMC]



Notes on electromagnetic compatibility [EMC]

E80, E82 type dental implant equipment is in compliance with EMC requirements in the standard of YY0505.

Users must install and operate in accordance with the EMC notes included.

Do not use any portable and mobile HF communication equipments(e.g.mobile telephones)during operation.

These may affect E80, E82 type dental implant equipment.

See the Annex as the instructions and declaration of manufacturers.

E80, E82 type dental implant equipment shall not approach or stack up with other devices, if it has to be this way, this equipment shall be evaluated whether it is working normally under the mentioned situation.

Apart from the cable that the manufacture sells as the internally original spare parts for E80, E82 type dental implant equipment, the use of other accessories or cable can lead to an increased emission of electromagnetic interference or to a reduced resistance against electromagnetic interference.

4.Unpacking

Handle with care when unpacking and check the components and spare parts according to packing list .
Our equipment packaging is environmentally friendly and can be disposed of by industrial recycling companies.
However , we recommend that you keep the original packaging.

5.Standard configuration

- **Unit main body(with cooling device)**
- **Foot control**
- **Foot control pothook**
- **Motor (LED or non LED are Optional)**
- **Handpiece support**
- **Stand**
- **5 clips**
- **Power cord**
- **Electric fuse T1.25AH/250V 2PCS**

6.Safety notes



Please observe the following instructions under all circumstances

- Before using the equipment for the first time, store it at room temperature for 24 hours.
- Only insert or extract the bur or drill and handpieces when the motor is at a complete standstill.
- Never touch rotary instruments that are still rotating.
- Never touch the chuck mechanism of straight and contra-angle handpieces during operation or while they are still running down.
 - Make sure that the operation can be completed safely even if a device or instrument malfunctions.
 - Always ensure correct operating conditions and that sufficient and adequate cooling is delivered.
 - Avoid overheating at the treatment site.
 - During treatment, if the motor is found to be spinning, replace the handpiece designated by JINME.
 - Check the equipment, the straight or contra-angle handpiece and the motor, if any parts damaged and loose each time before using. Correct any faults or refer to an authorized JINME service partner. Do not operate the equipment if it is damaged.
- When changing the fuse, disconnect the unit from the power supply and only use JINME original fuses.

➤ Perform a test run prior to each treatment, confirm that the machine is working properly before it is used for patient treatment.

➤ Check the parameter settings every time the device is restarted.

➤ The motor of the equipment needs to be placed on the handpiece bracket, and placed on a horizontal table or fixed on the plunger, and placed in a place not easy to be impacted in order to prevent damage against the implant motor drops; If the implant motor drops, The test run must be performed prior to treatment to ensure that the implant motor is used for treatment under normal conditions or it must be discontinued and repaired.

➤ Do not use solvents such as thinner and volatile oil to clean.

➤ When cleaning the main unit, please turn off the power and unplug the power plug, clean it and prevent the water from entering the main unit.

➤ After use, please turn off the power, unplug the power plug when not in use for a long time.

➤ Do not unplug the foot control or the motor cable during use or in standby mode. This may cause the main unit to malfunction.



The released version No. of the software for this equipment is V1.0.

If PCB board needs to be repaired or exchanged, make sure that the labeling of version No. on the PCB board. If any different, consult the closest JINME Partner before repair or exchange.



Use only suitable and serviceable tools

➤ **Ensure that you comply with the manufacturer's instructions for surgical straight and contra-angle handpieces with respect to maximum speed and torque, forward and reverse rotation.**

Risks due to electromagnetic fields

The functionality of the equipment, such as cardiac pacemakers and ICD (implantable cardioverter defibrillator) can be affected by electric, magnetic and electromagnetic fields

- **Find out if patients and users have an implanted device before using the product and consider the applications.**
- **Keep the product away from implanted devices.**
- **Make appropriate emergency provisions and take immediate action on any signs of ill-health.**
- **Symptoms such as raised heartbeat, irregular pulse and dizziness can be signs of a problem with a cardiac pacemaker or ICD(implantable cardioverter defibrillator)**



Inappropriate use

Improper use, in addition to incorrect assembly, installation, modification or repairs of the equipment or failure to comply with our instructions invalidates all claims under warranty and any other claims.



Danger zones

Our equipment is not suitable for use in potentially explosive atmospheres or with potentially explosive mixtures of anaesthetic substances containing oxygen or nitrous oxide, nor the equipment with oxygen-enriched atmospheres.

Control unit

➤ **The control unit is classed as <conventional equipment>(closed equipment without protection against the ingress of water)**

➤ **When using the transmission setting 20:1, the equipment must only be employed with 20:1 surgical contra-angle handpieces authorised by JINME. Use other contra-angle handpieces may result in deviation from the indicated torques and is under the user's responsibility. The specified transmission ratio for the programs 1 to 5 must always be taken into consideration.**

- Please note that it is difficult to determine if the motor is running at low speeds.

Mains cable

- Only use the mains cable supplied.
- Only connect to a grounded socket outlet.



Set up the device and keep a certain distance away from the surrounding so that the power switch is easily accessible.

In dangerous situations, the device can be disconnected from the power supply using the power switch or power cable.



Power failure

- In the event of a power failure, if the equipment is switched off or when switching between programs, the last values set are saved and re-activated on power-up.

Intermittent operating mode S3 (3mins/10mins)

➤ The equipment is designed for intermittent operating mode S3 with an operating time of 3 minutes and an interval time of 10 minutes. If the operating mode specified is observed no overheating of the system and therefore no injury to the patient, user or third person arises. The responsibility for the use and timely shutdown of the system lies with the user.



This equipment designed to application with normal saline. It should be used only with appropriate cleaning liquid, additionally, follow and operate as per the medical data and instructions provided by manufacturer. It's necessary to use the disposable irrigation tubing or accessories authorised by JINME for the single use of implant surgery.

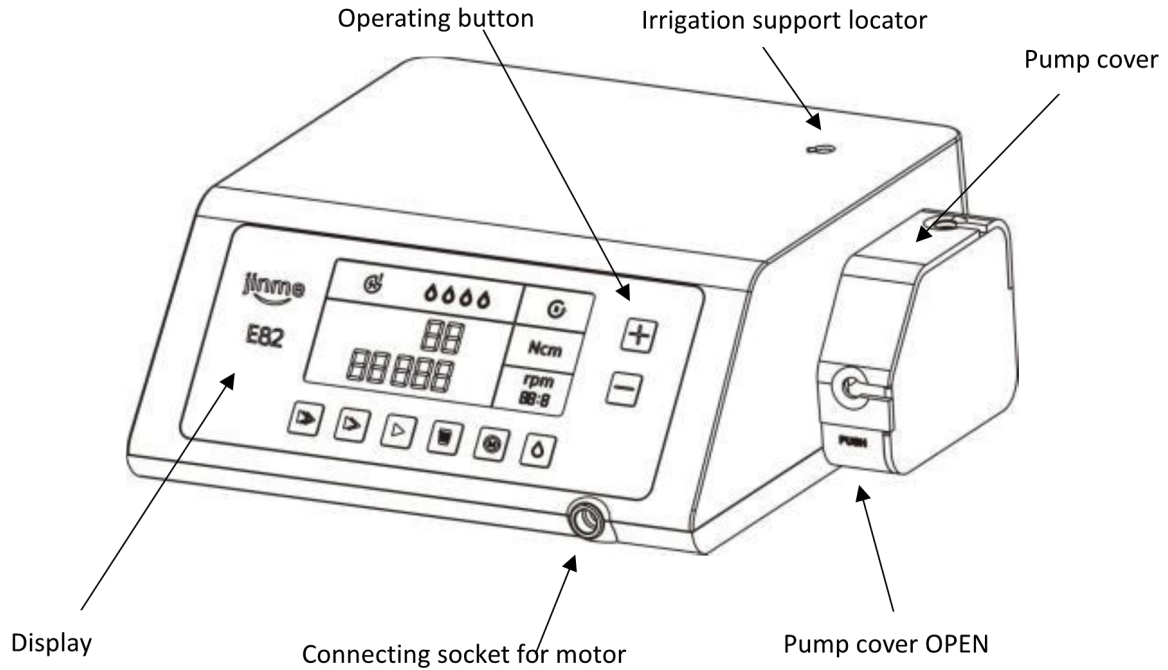
The equipped disposal irrigation tubing together with the equipment is only for the one-time use during installation and trial run. Please note that the validity date of disposable irrigation tubing for oral implants and waste treatment must conform to the requirements of the related laws and regulations. Once the external package of disposable irrigation tubing for implant surgery get spoiled, it's no longer to use anymore.

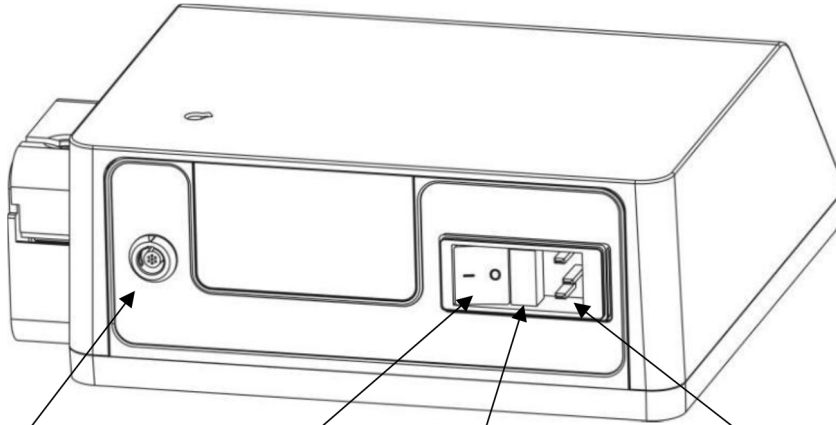
Rotation energy

➤ In the process of sharp deceleration of implant drill, it's likely to drive the rotation energy stored in drive system, which might lead to overloaded in the pre-set torque compared to the originally set value.

7. Description of front/rear panel

Program buttons





Connecting socket
for foot control

Power switch
ON/OFF

Fuse holder with 2 fuses
(2 fuses are available inside)

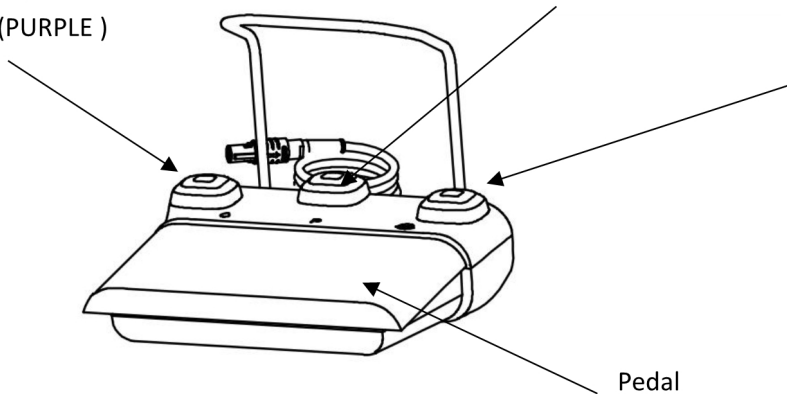
Power socket

8. Description of foot control

Pump operation
ON/OFF (PURPLE)

Change program (BLUE)

Change motor direction --
forward/reserve drive (DARK
GRAY)



Pothook attach/detach

9.Description of motor



The motor and the motor cable must not be disassembled.
The motor must not be oiled (It is lubricated for long-time use)



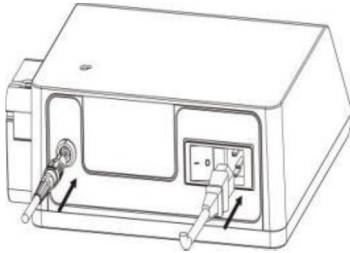
Temperature information:

Applied part motor: max. 55°C

10.Starting operation-General connection



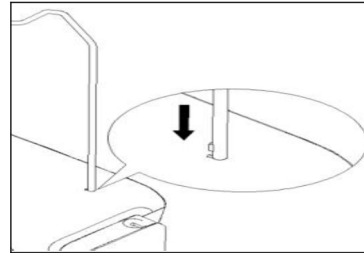
Always place the equipment on a flat level surface. Ensure that the equipment can be disconnected easily from the power supply.



① Connect the main cable and foot control.



Pay attention to the positioning.



② Insert the irrigation support arm.

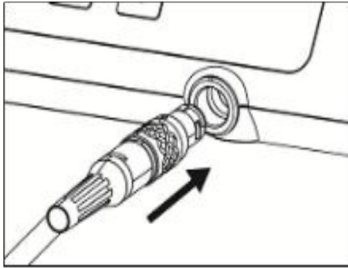


Pay attention to the positioning!
(Maximum load capacity is 1.5KG)

④ Open the pump cover, insert the disposable irrigation tubing.



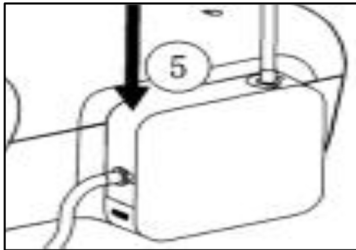
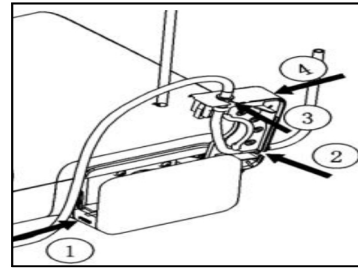
Follow the same sequence when removing the irrigation tubing.



③ Insert the motor cable.



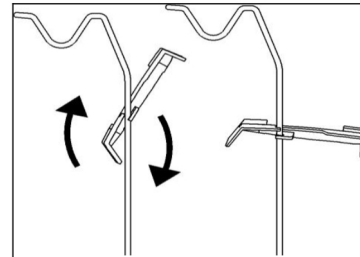
Pay attention to the insertion by point-to-point!



⑤ Close the pump cover.



Follow the same sequence when removing the disposable irrigation tubing for oral implants.



⑥ Attach the motor stand and lock it.



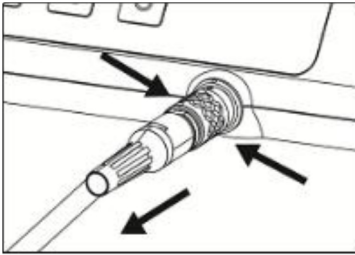
Make sure the installation is in place and will not slip off.

Disassemble the motor of the equipment:

⑦ Disassemble the motor of the equipment.



Pinch the knurling part of cable connector



11. Switch on/off the equipment

1. **Switch on:** Connect the equipment to the power supply. Turn on the equipment at the power switch.
2. **Switch off:** Turn off the equipment at the power switch. Disconnect the equipment from the power supply.



Test run

- **Start the motor.**
- **In the event of malfunctions (e.g. vibrations, abnormal noises, overheating, coolant failure or leakage), stop**

the motor immediately and contact an authorized JINME service partner .

12.Control unit operation-Changing program.[P1-P5]

- Ensure when switching on the equipment that the LED displays on the buttons and the display itself are all on.
- Activate the required program[P1-P5] by pressing the corresponding program button. After each selection, an audible signal can be heard and the Program button lights up. The selected program appears on the display with the adjusted range in rpm, torque in N●cm and corresponding speed ratio (1:1 or 20:1) of handpiece to be used.

Display setting:

P1 displays speed in rpm and handpiece speed ratio 1:1

P2-P5 displays torque in N●cm, speed in rpm and handpiece speed ratio 20:1

Pump operation ON/OFF

ON: One to four irrigation solid drop-shaped icon will be shown.

OFF: Four empty irrigation drop-shaped icons will be shown.



Temperature alarm icon



appears: 1. Overheating of motor; 2. Plug-in connection of motor is weak.



13. Control unit operation-Changing speed [P1]

Long press "+" / "-" button to activate the function of continuously increased/decreased.

① Press program setting button [P1]



② Press "+" to increase speed



③ Press "-" to decrease speed



The accuracy of the set speed in the range 100-40,000 rpm is $\pm 10\%$.

The speed shown in the P1 program is the speed of the working tip of the handpiece with 1:1.

14. Control unit operation-change speed and torque [P2-P3]

Long press "+" / "-" button to activate the function of rapid increase and decrease setting.

① Press the button [P2 or P3], when you hear a beep, access the speed setting and release the P2 or P3 button.



Press "+" to increase speed



Press "-" to decrease speed

② Long press the button [P2 or P3] for three seconds, when you hear a beep, get into the torque setting, release the P2 or P3 button.



Press "+" to increase torque



Press "-" to decrease torque



After stopping the setting operation for three seconds, it will exit the setting interface automatically and keep the last setting parameter.

The speed shown in the P2-P5 program is the speed of the working tip after the 20:1 handpiece is configured.

15. Control unit operation-change torque[P4-P5]

Program P4: range from 5-70 N•cm.

Program P5: range from 20-60 N•cm.

Long press “+”/“-” button to activate the function of the torque values are continuously increased/ decreased.

A longer confirmation signal is heard on changing from 5 to 70 N•cm[20 to 60] and 70 to 5 N•cm[60 to 20]

① Press the setting button [P4 or P5], enter the torque setting after a beep;



② P4: Increase torque by 5 N•cm in every press
P5: Increase torque by 10 N•cm in every press



③ P4: Decrease torque by 5 N•cm in every press
P5: Decrease torque by 10 N•cm in every press



When using a contra-angle handpiece to set the torque at 50 N•cm, the accuracy achieved is $\pm 10\%$.

After stopping the setting operation for three seconds, it will exit the setting interface automatically and keep the last setting parameter.

Under the program P4-P5, the speed is fixed and cannot be adjusted.

16.Changing coolant flow rate

Adjustable range is divided in five levels (0%, 45%, 65%, 80%, 100%) , When the irrigation volume is 100%, water flow is greater than 90ml/ min.

Continuously press irrigation drop button to adjust the irrigation volume. The numbers of irrigation solid drop-shaped icons stand for 5 different levels accordingly.



If the pump needs to be switched on and off quickly, you can directly press the pump ON/OFF function on the foot control.

17. Foot control operation

Program changing button in blue color (P1-P4 program conversion, P5 torque adjustment function)

- Press the program changing button to select programs P1-P4 and torque steps [20-60N●cm] in program P5 in ascending order. A longer confirmation signal is heard on changing from program P4 to program P1 or 60 N●cm to 20 N●cm setting in program P5. With each program change, the motor direction is automatically set to forward rotation.

Irrigation button in purple color(Pump ON/OFF)

- The pump can be switched on or off by pressing the Irrigation button of the foot control only when the motor is stationary.
- The irrigation solid drop-shaped icon will be shown if the pump function is activated.

Forward/reverse button in dark gray color(Reverse operation)

- **Press the forward/reverse button to change from forward operation to reverse operation.**
- **On selecting reverse operation, an audible signal can be heard and the selected program button flashes.**
- **Before the motor starts in reverse operation, 3 audible warning signals are given.**
- **The change on forward and reverse can also be realized by pressing “+” or “-” for 3 seconds**

Foot control "stepless"/" non-stepless "function Settings

During the whole process, press and hold the setting button P3, and a prompt tone will be issued after about 4 seconds. Without releasing P3, press "+" and "-" buttons to enter the setting interface 01 or 00; Release "+" and "-" buttons, and press "+" or "-" button to switch 01 or 00.

01= stepless speed change function (factory setting); The motor speeds up and down with the depth of the foot control.
00= "non-infinitely variable speed" (on/off function); The motor enters the set speed directly when the foot control is pressed down.

18. Reset factory settings

① Switch off control unit.

② Keep P1 depressed until the setting » DE FAU « appears on the display, after 2 seconds, it will automatically enter the operation interface and complete the factory setting reset.

Speed range calibration

When there is no way to turn off the motor after the pedal is released or can not reach the maximum speed after the pedal is stepped on, it is suggested to calibrate the speed according to the following operation, if it still can not be solved after execution, it is suggested to deactivate the device Contact JINME service partner.

① Close control unit.

② Press and hold P1, open the main unit at the same time.

③ Press and hold P1 until » DE FAU « appears on the display, the machine automatically records the minimum starting value.

④ Fully depress the foot control, and press the "+" button once, and the buzzer will ring twice. At this time, the machine will automatically record the maximum value. After releasing the foot control, the machine automatically enters the operation interface and completes the calibration of the speed range.



It's suggested to reset the above mentioned factory setting when the new PCB and foot control are going to be replaced.

19. Motor LED brightness adjustment (Only for E80 type)

① Long press the button P5 for about 4 seconds. Upon hearing the beep, enter the LED brightness setting, release it, and press the following button within 2 seconds.



② Press "+" to increase brightness



Press "-" to decrease brightness



LED brightness setting is divided into four levels of adjustment (off, weak, medium, strong);
The LED delays to be switched off after 3 seconds from stopping working.

20.Factory settings[P1-P3]

Setting	P1	P2	P3
Transmission ratio	1:1	20:1	20:1
Speed rpm	35000	1200	800
Adjustable range rpm	100-40000	5-2000	5-2000
Torque N●cm	No Display	55	55
Adjustable range N●cm	No Display	5-70	5-70

Motor direction	Forward	Forward	Forward
Pump	On	On	On

21.Factory settings [P4-P5]

Setting	P4 Forward	P4 Reverse	P5 Forward	P5 Reverse
Transmission ratio	20:1	20:1	20:1	20:1
Speed rpm	15	30	20	20
Motor direction	forward	reverse	forward	reverse
Pump	On	Off	On	On
Torque N•cm	20	60	20	20

Adjustable range N•cm	5-70	5-70	20-60	20-60
--------------------------	------	------	-------	-------

22.Thread cutter function (chip breaker mode)

When the thread cutter function (P5) is activated,the speed in both forward and reverse operation modes is 20 rpm and can not be changed.When the foot pedal on the foot control is pressed,the thread cutter rotates inwards until the set torque is reached.When the set torque is reached,the device automatically stops and switches to reverse operation. Release and press the foot pedal again will restart the operation and to forward.



If the thread cutter function is in reverse operation mode, the device can also start with the maximum torque.

- ① Press program button P5.

② Press “+”/“-” button to increase or decrease the torque.

23.Error message

Error no.	Description	Solution
E00	Electronics overheating-Safety shutdown	Switch off device, allow device to cool for at least 10 minutes, re-start
E01	Electronics overloaded	Switch off device, allow device to cool for at least 10 minutes, re-start
E07	Foot control error-initializing	Switch off device, re-start, do not actuate foot control when switching on
E09	Foot control error	Switch off device, check plug-in connection of foot control, re-start
E11	Self-check maloperation failure	Switch off device and re-start
E19	Running time limiter	Switch off device and re-start
E99	System failure	Switch off device, allow motor to cool for at least 10 minutes , re-start



Motor overheating
Motor plug-in connection

Switch off device, check plug-in motor connection, allow motor to cool for at least 10 minutes, re-start

If one of the error messages described above cannot be rectified by switching off the equipment and then switching it on again, the equipment must be checked by an authorized JINME service partner. If a total failure of the equipment occurs caused by external circumstances, the equipment must be switched off and then on again.

24. Hygiene and maintenance

Follow your country-specific directives, standards and guidelines for cleaning and sterilization.



- **Wear protective clothing.**
- **Clean the motor immediately after every treatment.**
- **Sterilize the motor followed by cleaning.**
- **Sterilize motor, motor cable and handpiece support before each treatment.**
- **The control unit, foot control are not approved for mechanical cleaning(thermo washer disinfectant) and sterilization.**
- **Do not immerse the control unit and foot control or motor cable or clean it under running water.**

Control unit, foot control

Manual cleaning and disinfection

The front panel of the control unit and the foot control are sealed and may be wiped clean.

- **Disinfection with disinfectants, wiping disinfection is recommended.**
- **Use only disinfectants which do not contain chlorine and which are certified by officially recognized institutes. It's suggested to use 75% alcohol disinfectant.**
- **Note the manufacturer's specifications for the use of the disinfectants.**

Motor, motor cable and handpiece support of the equipment



Do not twist or kink the motor cable! Do not coil it too tightly!

Do not put the motor and motor cable into the liquid disinfectant or ultrasonic cleaning machine.

Please follow the sterilization procedure for motor, motor cable and handpiece support of the equipment according to the following steps before the first use.

Process	Process stages	Relevant	Requirement	Matters need attention
Overall process	Overall process	Overall process	1.Wear protective clothing	
Site preparation prior to use of post - treatment	Removal of pollution	Total removal of dirt	1.Clean with disinfectant paper towel after each use to remove obvious dirt. 2.After removing obvious dirt, put the special tray to the disinfection room in time.	Use only wet paper towel that do not have a protein stabilization effect.
	Ready for the transportation	Container safe transport	1.Pallet motors (with cable) and handpiece support for transport to prevent falling and protect health care personnel.	The tray must be sterilized after use to prevent double contamination.
Prepare to	Preparation	The preparation of	1.Prepare shower nozzle and brush and rigid sterilization	

cleaning		the tools	container.	
Cleaning	Manual cleaning	Remove dirt	<p>1. Use demineralized water (< 38 °C) and brush to wash, absorbent cloth to clean the to sterilization products.</p> <p>a. Surface cleaning: motor and motor cable surfaces are cleaned, using a absorbent cloth or brush to remove any liquid residues until visually clean.</p> <p>b. Clearance, contact parts clean: clearance parts, motor tail connection clearance parts, brush back and forth repeatedly clean, until no visible stains residues, then wipe with a water absorbent cloth.</p> <p>c. Rinse visible stains directly from the handpiece support and wipe with a absorbent cloth.</p> <p>2. Use enzyme cleaner and absorbent cloth to wipe and clean the motor (with cable) and handpiece support that have been rinsed in the first step, and ensure that all clearances and accessible surfaces are wiped and cleaned</p> <p>3. Use demineralized water (<38°C) and brush to wash;</p> <p>4. Dry with a sterile, highly absorbent cloth and leave to dry for a period of time</p>	<p>The motor connection is down to avoid water flowing into the motor when washing,.</p> <p>Never immerse the motor in liquid or ultrasonic cleaner.</p>
Dry			1.Dry or sterilized low fiber floc wipes with air gun until no liquid	

			residue is detected.	
Packaging	Packaging		1. Put the motor (with cable) into the rigid sterilization container and cover it. Do not twist or kink the motor cable! Do not coil it too tightly. One container contains only one set of motor (with cable) and handpiece support.	Rigid sterilization container shall meet the requirements of ISO 11607-1:2006.
Sterilization	Hot and humid	Sterilization phase	<ol style="list-style-type: none"> 1. High-temperature and high-pressure sterilization shall be carried out as follows: 2. Clean it after use and sterilize it within the same day; 3. At the temperature 134 °C , pressure of 205 kpa (2.1 kg/cm²) high temperature and high pressure detoxification sterilization, the stage of not less than 3 minutes; 4. It is recommended that the sterilization load should not exceed 10 sets at a time, which should be tiled in the sterilizer and not stacked. Each set of sterilization products should have an independent rigid container. 	User shall establish a record and label of the number and date of sterilization in accordance with the instructions, standards and principles of the country (region) where the user is located.
Keep in storage		Storage	1. It is suggested that sterilized articles should be stored in the storage rack or cabinet in the sterile articles storage room, which should be easy to clean and not easy to rust; The environment should be kept clean, bright, ventilated or equipped with air purifying devices, with sufficient lighting; Temperature is	Please follow the instructions, standards and principles of your country (region).

			<p>below 24 °C, humidity is below 70%.</p> <p>2. Sterilized articles shall be stored in a classified and relatively fixed place with clear identification.</p> <p>3. After sterilization, the storage, marking and expiry date shall comply with the instructions, standards and principles of the country (region) where you are located. Please follow the regulations of the hospital and clinic where you are.</p>	
Transport	Transfer	Send to destination	<p>1、 Transshipment is carried out according to the requirements using specified transport utensils.</p>	<p>Please follow the instructions, standards and principles of your country (region).</p>



Before restart operation

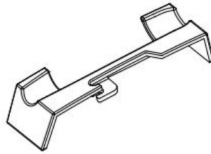
- **Wait until the motor and the cable have cooled down and are completely dry.**
- **Moisture in the plug or motor can lead to a malfunction.(Risk of short circuit)**

25. Accessories

(Use only original JINME accessories/spare parts or accessories approved by JINME)



Stand



Motor support



Foot control



Motor



Handle for foot control



**Electric fuse
T1.25AH/250V**



Other manufacturers for external attachment:

- **Only use the pre-sterilized disposable irrigation tubing with valid registration for oral implant. The specification for extrusion section is 6*4mm. The use of substandard irrigation tubing is likely to lead to lower water flow for cooling system.**
- **Only use 1:1 straight handpiece and 20:1 contra angle handpiece conforming to YY1012-2004 Dental handpiece - Coupling dimensions (ISO 3964). The use of handpiece not conforming to this standard may lead to equipment failure.**

26.Service



Regular checking the equipment and accessories

Regular servicing of function and safety including the accessories is necessary and should be carried out at least once every three years, unless shorter intervals are prescribed by law. The inspection must be undertaken by a qualified organization and must include the following procedures:

- Visual inspection for outside damage
- Measurement of device leakage current

- **Visual inspection of internal components on suspicion of safety interference**
- **E.g.mechanical damage of the external housing or indications of overheating**
- **Functional test with check to see if the maximum speed can be reached**
- **Recommend that only an authorized JINME service partner should undertake this servicing and checking.**

Motor and motor cable of the equipment

- **The standard YY0836-2011 stipulates a durability of at least 250 sterilization cycles. In the case of the motor and motor with cable from JINME, we recommend you to have a regular service carried out after 250 sterilization cycles or one year.**

Repairs

- **If a defect occurs, always return all the equipment, because motor malfunctions as an inspection of the electronic control is necessary.**

Returns

- **Refer all questions to an authorized JINME service partner.**
- **Always return equipment in the original packaging.**
- **Do not coil the cable around the motor and do not twist or kink the motor cable.(Risk of damage)**

27. Technical data

The equipment	E80	E82
Supply voltage	220VAC	220VAC
Permitted voltage fluctuation	±10%	±10%
Nominal current	0.1-0.8A	0.1-0.8A
Frequency	50/60Hz	50/60Hz
Mains fuse	2*250V-T1.25AH	2*250V-T1.25AH
Max.power consumption	170VA	170VA
Max. mechanical output power	70W	70W
Max.torque of motor	5.5N•cm	5.5N•cm
Motor speed range in the nominal voltage range	(100-40,000)r/min	(100-40,000)r/min
Coolant flow rate at 100%	>90ml/min	>90ml/min
Motor with LED	YES	NO

Operation mode	S3[3min/10min]	S3[3min/10min]
Dimensions in mm[W*D*H]	428*328*255	428*328*255
Net weight/ Gross weight	5.7/7.3	5.7/7.3
Color	white	white
Max illumination of LED in motor shall be no less than	2,00LUX	/

Physical characteristics

- Temperature for storage and transport: -30 °C to +70 °C . Humidity for storage: 8% to 85% (relative) ,non-condensing at +40°C.
- Temperature during operation: +10°C to +40°C. Humidity during operation:15% to 85%(relative), non-condensing at +40°C.
- Highest Altitude: 3,000m

Classification of device

According to IEC60601-1, classified according to Article 5 of "General Technical Specification for Medical Electrical Equipment Safety"

- Protection against electric shock: Class I instruments

- Degree of protection against electric shock: B-type instrument (not suitable for intracardiac instruments)



- The foot control is reach to the level of IPX6, (At least 3 minutes after the strong water spray no harmful effects). water-tight in accordance with GB4208-2017(IEC60529: 2013)

26. Recycling and disposal

Recycling

JINME considers that it has a special duty towards the environment, the equipment along with its packaging has been designed to be as environmentally friendly as possible.



- Disposal of the equipment (main unit), foot control, motor and disposable irrigation tubing for oral implants
 - Follow your country-specific laws, directives, standards and guidelines for the disposal of used electrical devices.
 - Ensure that the parts are not contaminated on disposal.



Disposal of the packaging material

All packaging materials have been selected according to environmentally compatible and disposal aspects and can be recycled. Please send old packaging materials to the relevant collection and reprocessing system. This way, you will contribute to the recycling of raw materials and the avoidance of waste.



27.Explanation of warranty terms

- This JINME product has been manufactured with great care by highly qualified specialists. A wide variety of tests and controls guarantee faultless operation. Please note that claims under warranty can only be validated when all the directions in the instructions for use have been followed.
- As a manufacturer, JINME is responsible for the warranty period of one year from the date of purchase on the main unit and foot controller due to material or manufacturing defects. The motor assumes the responsibility of a half year warranty from the date of purchase.
- We accept no responsibility for damage caused by incorrect handling or by repairs carried out by third parties not authorized to do so by JINME.
- Claims under warranty-accompanied by proof of purchase-must be sent to the vendor or to authorized JINME service partner. The provision of service under warranty extends neither the warranty period nor any other guarantee period.



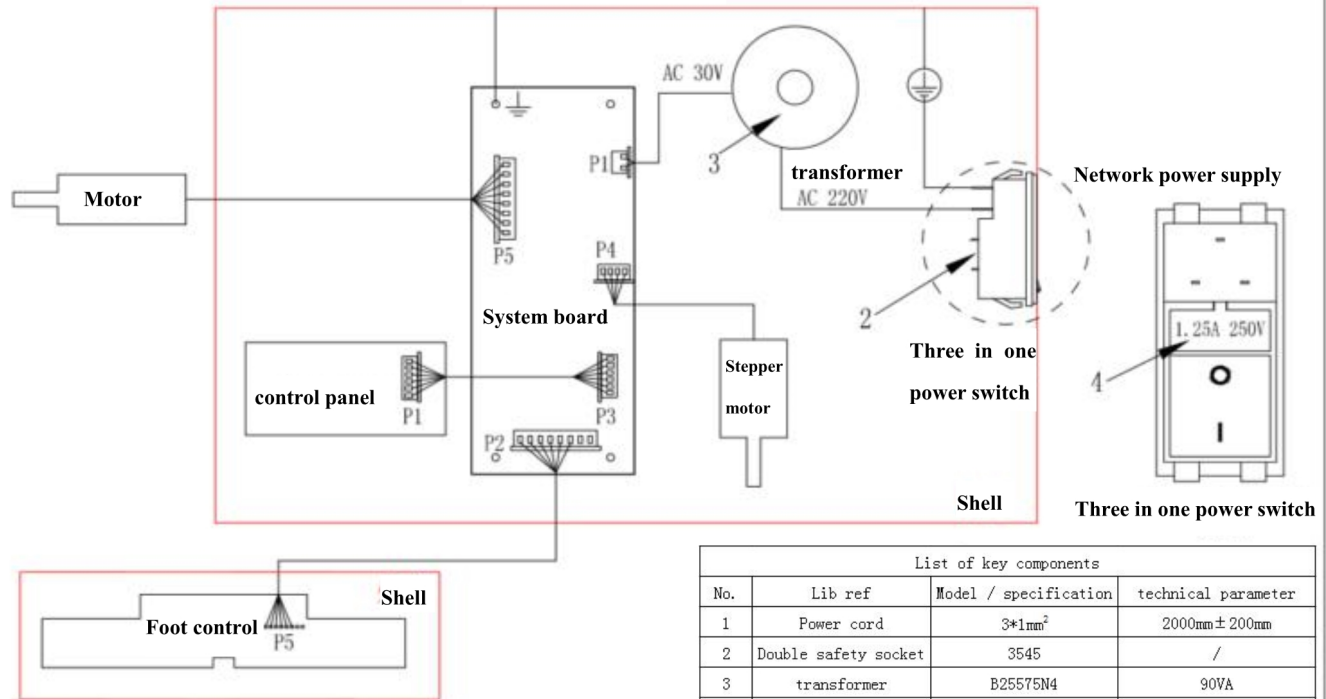
Authorized JINME service partners

Find your nearest JINME service partner at www.jinmedental.com

Or please contact Guangdong JINME Medical Technology Co., Ltd.

30. Annex:

Circuit connection diagram



List of key components

No.	Lib ref	Model / specification	technical parameter
1	Power cord	3*1mm ²	2000mm±200mm
2	Double safety socket	3545	/
3	transformer	B25575N4	90VA
4	Fuse	5*20mm	1.25A 250V



EU authorized representative

