Revised Pages

AMALGAMATOR INSTRUCTION

G5 G6 G10 G8

Dear customers,

Thanks for purchasing Amalgamator. To be on the safe side, please read the instruction carefully before use and make sure to keep it near the device so as to be read at any time.

In operation, please observe the rules strictly and don't forget to keep a correct and regular maintenance.

Following a continuous strategy, our company has the right to reserve an extra notice of the improvement of the device.

The product has been applied for national patent: (patent No.: ZL 2005 2 00149421.1), and counterfeit will be sued.

Dental Tools

I. Notes of the Medical Appliances

1. The device must be operated by professionals and designated persons.

2. Notes on placing the device:

1) It must be put in the place which is not connected with water or any other liquid.

2) It must be kept and operated in the place where there is no adverse air caused by air pressure, temperature, humidity, ventilation, insolation, dust, and salt, ion, etc.

3) It must be placed steadily and stably without any tilt, quake or the possibility of impact.
4) It must be far away from chemicals and chemical gas.
5) Power socket must apply with the required voltage and current of the device. Make sure to set the socket and lines correctly and the device requires separate socket with safety grounding.

3. Notes before use

1) Check is a must before use. Make sure there is no abnormal phenomenon on the appearance, esp. no water, the electrical lines of the socket are integrated without any crack or breakage, the switch and indicator are normal.
2) Make sure of the correct and stable safety grounding.
3) Make sure the supplying voltage and frequency agrees with the requirement.
§Before use, please remove the screws under the device which are used for fastening.§
4) In order to reduce noise, the amalgamator uses the spring damping system. In transit, red screws(3pcs in G5， G6, G10 and 2pcs in G8) are fixed under the device in the case of damage. Before using the device, please remove the red screws and put them aside.

4. Notes in operation

1) Specific use: Dental Amalgamator. It is applied for mixing dental restorative materials amalgam capsules and glass ionomer capsules.
2) Monitor whether there is any abnormal phenomenon strictly. If any abnormality occurs, please turn off the switch and unplug the socket.
3) Keep the patients off the device.

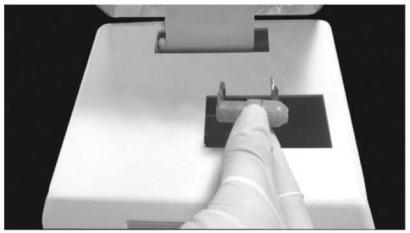
5. Notes after use

1) Strict checks must be made according to the requirement before turning off the switch.
2) When the switch is off, the socket must be unplugged instead of pulling down.
3) Maintenance requirements:
1. It must be put in the place which is not connected with water or any other liquid.
2. It must be kept and used in the place where there is no adverse air caused by air pressure, temperature, humidity, ventilation, insolation, dust, and salt, ion, etc.
3. It must be placed steadily and stably without any tilt, quake or the possibility of impact.
4. It must be far away from chemicals and chemical gas.

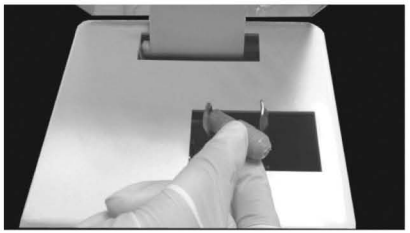
DentalTools

Revised Pages

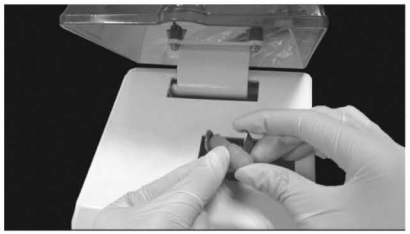
Steps of Operating G8（Metal Clip）



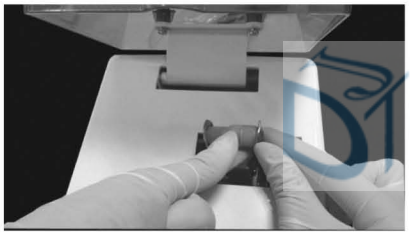
(1)



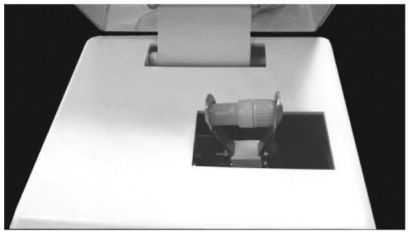
(2)



(3)



(4)



(5)

4) To guarantee the normal use of the device, the device and its accessories must be kept properly after cleaning.
5) If another transportation is needed, the screws must be fixed under the device.

6. Prohibit dismantling, or repairing the device by yourself when problems arise. Contact the distributors in time to have it repaired by professionals.

7. Prohibit remaking the device, or you have to be responsible for the consequences and lose the warranty at last.

8. Regular check and maintenance

1) Under normal circumstances, daily check before use and weekly maintenance are suggested.
2) If it is in idle for a while, the check on the safety and function is needed before resetting. Operation is permitted only when it is normal.
3) Maintenance period: the device should be maintained after one year of normal use, especially the tightness and fastness of clips and springs. If they are loose and broken, please change them timely.

9. Other important notes

Any deviation from the instruction is likely to cause malfunction, danger or accidents, so always be on the alert. Prohibit using the device unless you have read the instruction carefully and followed the requirements and standards.

Dental Tools

II. To guarantee the safety of using the device, the rules must be observed.

1. In case of induced electricity, the device must be far away from sink or moist places.
2. The device should be cleaned and placed in dry and ventilated room without corrosive gas in case of emergency.
3. To prevent the metal parts from rusting, the device mustn't be kept in the high heat and moist places.
4. The instruction explains the safe use of the device specifically, please be sure to put it near the device and read it carefully and frequently.

***Our company is not responsible for the following problems:**

1. Mechanical damage and personal accidents caused by remaking, dismantling or repairing the device by the staff out of our company or the non-designated persons.
2. Mechanical damage and personal accidents caused by using the parts out of our recognition.

3. Mechanical damage and personal accidents caused by disobeying the instruction and notes.
4. Mechanical damage and personal accidents caused by violating the requirements of voltage, grounding and environment.
5. Mechanical damage and personal accidents caused because of not removing the set screws under the device before use.
6. Mechanical damage caused because of not fixing the set screws during transportation after use.
7. Mechanical damage and personal accidents caused by natural disasters such as earthquake, fire, flood and lightning.
8. Clips and springs are easy to damage, the fee on renewing and changing them should be dealt by yourself.

Marks on the introduction:

⚠ Caution

Mechanical damage and personal accidents will be caused if you violate it.

⚠ Attention

Mechanical damage and personal accidents will be caused if you violate it.

DentalTools

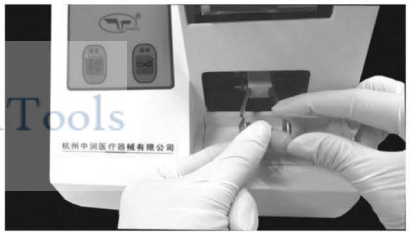
III. Type and Specifications

1. Product name: Dental Amalgamator
2.Specifications: G5
G6
G10
G8
3.Power: AC 110V, 60 Hz □
AC 120V, 60 Hz □
AC 220V, 50 Hz □
AC 230V, 50 Hz □
AC 240V, 50 Hz □
4.Motor power : 40W
5.Noise: ≤65 dB（A）;
6.Normal operating condition:
a) Environment conditions: temperature 20℃~25℃
b) Relative humidity: 40%~60%
c) Barometric air pressure: 86kpa~106kpa

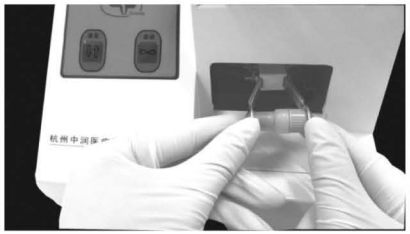
Steps of Operating G5、G6、G10（Metal Clip）

(1)

(2)



(3)



(4)

(5)

⚠Caution ⚠Attention

● If the problems can not be solved according to the above suggestions, don't dismantle or repair the device by yourself. It is a must to contact the distributor to have it repaired by the professional technicians.

VIII. After service:

Three Guarantees, 2 years warranty

IX. Storage conditions :

Temperature: -10-40℃, Relative humidity: ≤80%, no corrosive gas, well-ventilated.

X. Figures and signs:

（II-B）

G5/G6 figures and signs:

（timer）

（start/stop）

G10/G8 figures and signs:

Revolving speed

Timer

Start/Stop button

XI. Packing list:

No.	Name	quantity
1	Amalgamator	1
2	Springs	2
3	Fuse 2A Φ5×20	2
4	Instruction	1
5	Certificate（under the device）	1
6	Warranty card	1

7. Comprehensive performance comparison:

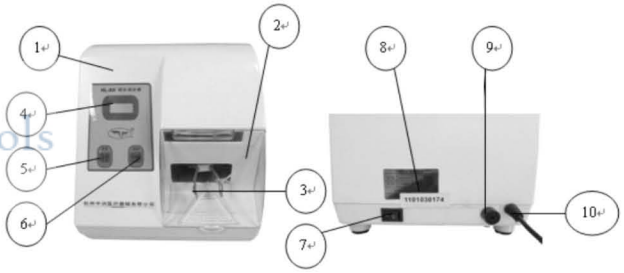
Specification	Speed	Timer Range（s）	Whole Weight（g）	Size（mm）
G5	≥4200RPM	4~60	2600	285*245*225
G6	High speed ≥4200RPM Low speed: 2800RPM	4~60	2600	285*245*225
G10	2800~5000RPM	1~99	2600	285*245*225
G8	2800~5000RPM	1~99	2000	260*220*190

8.Classification of the devices: Ⅰ: Medical devices; Ⅱ-B: Electrical devices, common devices， non-AP or non-APG devices, can run continuously.

9.Service life：5 years.

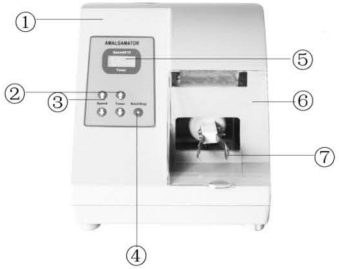
IV. Names of parts and their operations:

1.Parts of G5 and G6（their appearances are similar ）:



1. Shell 2. Mask 3.Clip 4.LCD display 5.Timer
6. Start/Stop button 7.Switch 8.Nameplate 9.Fuse 10. Power wire

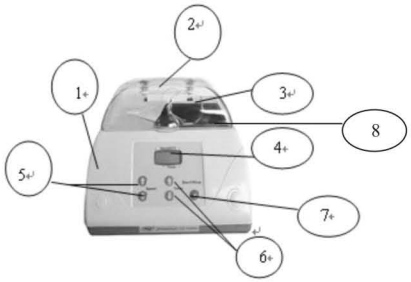
2.Parts of G10:



1. Shell 2.Timer 3.Revolving speed-setting 4.Start/Stop button
5. LCD display 6.Mask 7. Clip

DentalTools

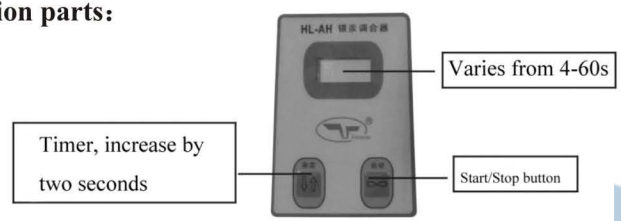
3.Parts of G8



1. Shell 2. Mask 3.Clip 4.LCD display
5. Revolving speed-setting 6.Timer 7. Start/Stop button
8. Rubber tray（in case liquid, dust ,capsules, and others fall into machine）

4.Operation parts:

1）G5:



1) Switch:
Connect the power line of the device to power, the switch is a black one with the form of a ship and lies in the back left hand corner of the device. Turn on the switch, the LCD display becomes light, then the power is on. The number shown on the LCD display is the setting time.
2) Digital time controller:
It is used for controlling the operation time correctly, and is composed of LCD display, timer, Start/Stop button. The LCD display shows the setting time; timer button is on the left of the panel and it is used to set the operation time randomly from 4 to 60 seconds (increase by 2 seconds); Start/Stop button is on the right of the panel. Press it once, the device operates once. If pause is needed, you can press it too.
3) Mask and clip:
Open the mask when loading the materials and close it when operating. The clip inside is used for holding the amalgam capsule.

2）G6:

Specification: The operation of G6 is similar with that of G5, except changing revolving speed. Switchover method of G6: Press timer and Start/Stop button simultaneously.

2. Wipe away the dust on surface.

⚠Attention

Chemical cleaner mustn't be used for cleaning the device.
3. Maintenance period: the device should be maintained after one year of normal use, especially the tightness and fastness of clips. If they are loose and broken, please change them timely.

VII. FAQ

1) The device doesn’t work at all: check whether the fuse is broken, if it is, please change a proper cartridge fuse; the way to change a fuse: use the one of F2A Φ5×20f, spin the screws on fuse block with a "cross" screw driver, put the cartridge fuse in, and spin the screws again.
2) Solution to a broken mask: if you press the Start/Stop button, the device doesn't work, it's probable that the hall part of the mask falls off. Solution: In the shutdown mode, press the timer and the rear switch simultaneously, the LCD display shows "O"/"U", then slacken the timer and the rear switch, and press the Start/Stop button to switch from "O" and "U", when finished, turn off the rear switch. Turn on the switch again, while it is on "O", open the mask, the device will stop working, while it is on "U" with the mask open, the device can work continually. This solution is only for emergency use, please send it to the maintenance department of medical devices or manufacturers.
3) Nonuniform amalgam capsules and glass ionomer capsules:

●See whether the speed and time are proper.

①If the amalgam capsule is so dry as to be powder, the speed is too slow and the time is too short. Please reset the speed and time and operate again.

②If the amalgam capsule is too sparse, the speed is too fast and the time is too long. Please reset the speed and time and operate again.

●Consider whether the internal properties of materials have degraded. Change new amalgam capsules and glass ionomer capsules and operate again.

4) Problems of the timer and others: Please send it to the maintenance department of medical devices or manufacturers. Prohibit opening the shell for repairing.

DentalTools

4. Usage of G8:

1) Plug in, press the black switch at rear panel, the LCD display is light.
2) Set the mixing time. Press time up/time down button, the LCD display shows the time; press the timer, the time increases/decreases by 1 second. If you press the timer for a long time, the time will increase/decrease to the needed time quickly. (Setting time ranges from 1 to 99 seconds) and the timer is memorable.(e.g. 036 stands for 36 seconds . Press time-up by one second, it becomes 037; press time-down by one second, it becomes 036.).
3) Set the mixing speed. Press speed-up/speed-down button, the LCD display shows the time. Press speed-up shortly, the speed increases 100 revolutions; press speed-down shortly, the speed decreases 100 revolutions. If you press the speed-up/speed-down button for a long time, the speed will increase/decrease quickly. (Setting speed ranges from 2,800 to 5,000 revolutions).(e.g. 3200 stands for 320 revolutions . Press speed-up by 100 revolutions, it becomes 330; press speed-down by 100 revolutions, it becomes 310.).
4) Open the mask, put the capsule into the clip and then close the mask.(To ensure safety, the device will beep on error instead of working while the mask is open), this design has been applied for national patent successfully, the number is ZL 2005 2 0014942.1.
5) Press Start/Stop button, the device runs, meanwhile, the LCD display shows the time which is decreasing accordingly until the time is over with beeping and the device stops working automatically.
6) Turn off the device and unload the capsule, the mix is completed.

⚠Attention

①In operation, please press the buttons and use the mask properly.
② The emplacement of amalgam capsule and glass ionomer capsule is shown in the figures enclosed.

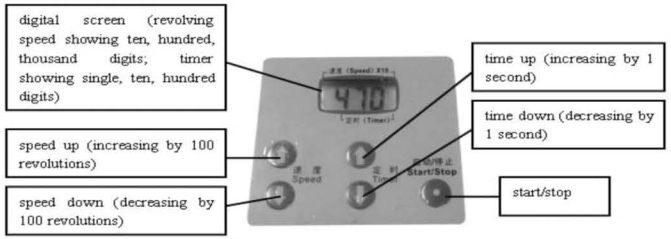
VI. Daily inspection and maintenance

1. Turn off the switch. Keep the shell and clip clean by antibacterial surface cleaner in case of pollutants.

⚠Caution

1) The inspection and maintenance must be done after complete cooling.
2) Unplug the device from the socket.

3）G10:



1) Switch:
The switch is a black one with the form of a ship and lies in the back left hand corner of the device. Turn on the switch, the LCD display becomes light, then the power is on. The number shown on the LCD display is the current revolving speed.
2) Timer and Revolving speed-setting: it is in the front panel.
3) Start/Stop button: it lies in the bottom right hand corner of the panel. Start the device once, it works once. If pause is needed, press the button too.
4) Mask and capsule clip: open the safety mask, put the dental restorative materials into the clip. In operation, the mask must be closed.

Dental Tools

4）G8:

The operation of G8 is the same as that of G10.

Suggestion on the time of mixing capsules.

Brand	**To take GK amalgam capsule for an example （ Ag43% Sn32% Cu25% ）**			
Specifications of amalgam capsule	GK alloy powders 200mg	GK alloy powders 400mg	GK alloy powders 600mg	GK alloy powders 800mg
Recommended time	12-16s	12-16s	12-18s	16-20s

V. Usage:

⚠Caution

Use a screwdriver counterclockwise to remove the red fixed screws under the device.
(As shown in figure)

3pcs in G5, G6 and G10

2pcs in G8

⚠Attention

For the first use, please use high speed idling for 60 seconds, which is beneficial to the site adjustment and prolong service life.

1.Usage of G5:

1) Plug in, press the black switch at rear panel, the LCD display is light.
2) Set the mixing time. Press the timer shortly, the time increases 2 seconds; press it for a long time, the time increases to the needed time quickly.(the highest time is 60 seconds, then it drops to 4 seconds)and the timer is memorable.(e.g. 004 stands for 4 seconds and 060 stands for 60 seconds).
3) Open the mask, put the capsule into the clip and then close the mask.(To ensure safety, the device will beep on error instead of working while the mask is open), this design has been applied for national patent successfully, the number is ZL 2005 2 0014942.1.
4) Press Start/Stop button, the device runs, meanwhile, the LCD display shows the time which is decreasing accordingly until the time is over with beeping and the device stops working automatically.
5) Turn off the device and unload the capsule, the mix is completed.

2.Usage of G6:

1) Plug in, press the black switch at rear panel, the LCD display is light.
2) Choose high and low speed according to the specific capsule. Steps of switching the two kinds of speed: press Start/Stop button and timer together, when the LCD display shows "H", it means high speed (amalgam capsule corresponds with high speed); press the two buttons again; it changes into "L" which stands for low speed.
3) Set the mixing time. Press the timer shortly, the time increases 2 seconds; press it for a long time, the time increases to the needed time quickly.(the highest time is 60 seconds, then it drops to 4 seconds)and the timer is memorable.(e.g. 004 stands for 4 seconds and 060 stands for 60 seconds).
4) Open the mask, put the capsule into the clip and then close the mask. (To ensure safety, the device will beep on error instead of working while the mask is open), this design has been applied for national patent successfully, the number is ZL 2005 2 0014942.1.
5) Press Start/Stop button, the device runs, meanwhile, the LCD display shows the time which is decreasing accordingly until the time is over with beeping and the device stops working automatically.
6) Turn off the device and unload the capsule, the mix is completed.

3. Usage of G10:

1) Plug in, press the black switch at rear panel, the LCD display is light.
2) Set the mixing time. Press time up/time down button, the LCD display shows the time; press the timer, the time increases/decreases by 1 second. If you press the timer for a long time, the time will increase/decrease to the needed time quickly. (Setting time ranges from 1 to 99 seconds) and the timer is memorable.(e.g. 036 stands for 36 seconds . Press time-up by one second, it becomes 037; press time-down by one second, it becomes 036.).
3) Set the mixing speed. Press speed-up/speed-down button, the LCD display shows the time. Press speed-up shortly, the speed increases 100 revolutions; press speed-down shortly, the speed decreases 100 revolutions. If you press the speed-up/speed-down button for a long time, the speed will increase/decrease quickly. (Setting speed ranges from 2,800 to 4,700 revolutions).(e.g. 3200 stands for 320 revolutions . Press speed-up by 100 revolutions, it becomes 330; press speed-down by 100 revolutions, it becomes 310.).
4) Open the mask, put the capsule into the clip and then close the mask.(To ensure safety, the device will beep on error instead of working while the mask is open), this design has been applied for national patent successfully, the number is ZL 2005 2 0014942.1.
5) Press Start/Stop button, the device runs, meanwhile, the LCD display shows the time which is decreasing accordingly until the time is over with beeping and the device stops working automatically.
6) Turn off the device and unload the capsule, the mix is completed.

DentalTool