

Operating Manual for H2101

Ultrasonic Wave Beauty Instrument

●Work Principle of Ultrasonic Wave

Ultrasonic wave is referred to wave of mechanical vibration with the frequency of 20,000Hz above which cannot incite the sense of hearing of normal persons. The function mainly centers on the following three aspects:

(1) The Mechanical Effect

The ultrasonic wave, with more power than other common waves, will speed up the movement of the cells as applied to human body, generate a certain massage-like effect and energy to change the cells. Meanwhile, the ultrasonic wave can cause the cytolymph movement, granoplasam rotation, particle chattering and rubbing, and stimulate the semi-permeable membrane diffuseness, which contribute to improve the partial blood and lymph circulation, strengthen the permeability of cells, and enhance the power of metabolism and regeneration of body tissues.

The mechanical effect of ultrasonic wave bears the functions to soften the tissues, strengthen the permeability, promote metabolism, accelerating blood circulation, and excite the nervous system and cells. When applied to human body, it can transfer the energy to the deep skin. Therefore, ultrasonic wave has a better curative effect than mechanical massage.

(2) Warming Effect

As a treatment method only inferior to the mechanical effect, the warming effect of ultrasonic wave is kind of inner-generated warming, and 79-82% of the total heat generated is transported by the self action of the blood, while the remaining 18-21% is dispersed to the near body tissues via the heat transfer. Therefore, the patient has no obvious feeling when the ultrasonic wave is applied to beautification. The degree of temperature rising of body tissues caused by different treatment methods is also with differences. Under the same condition of continuous ultrasonic radiation (the panel sign is ) , the fixation method can cause higher temperature rising than the moving method. The heat effect generated by the pulse radiation is much less (the panel sign is ) while it is in application.

In a word, the warming effect of ultrasonic wave can cause the speeding of the blood flow and change in the process of metabolism, also can strengthen the blood circulation, reduce the nerve excitement, calm the pain, and relax the convulsionary muscle fiber gaining a function of relaxing convulsion.

(3) Chemical Effect

The biochemical effect is produced mainly by the polymerization and decomposition reaction. Polymerization reaction refers to a process of some same or similar molecules forming bigger molecules. A small amount of ultrasonic wave can boost the growing and producing process of the protein compound in the cells, and stimulate the reproduce of the damaged tissues, while treating amount of ultrasonic wave can stimulate the protein synthesis of the fiber cells. Decomposition reaction is a process in which the viscosity of big molecule gets reduced, and the molecular weight decreased, causing the temporary fall of viscosity of the drug solution, which is beneficial for the drug to be absorbed easily.

Therefore, ultrasonic wave possesses the chemical function of speeding up metabolism and strengthening catalysis, meanwhile urges the tissue PH value to change towards alkaline, so it can refrain the swell and pain caused by the skin inflammation. Ultrasonic wave can promote the permeability of cell membrane, which is favorable for the drug to disperse and penetrate into the bacteria, then improve the ability of sterilization.

In conclusion, ultrasonic wave with the mechanical effect, warming effect and chemical effect can massage partial tissue cells slightly, raise the temperature of partial tissue layer, strengthen the diffusion of cell collide solution, excite the cells, thus the blood circulation gets strengthened, the tissues softened, chemical reaction sped, metabolism enhanced, protein molecule and various enzymes affected, Ph value changed, and bioactivator content differed, etc.

●Beauty Functions of Ultrasonic

1. Soften thrombus and eliminate blush: It adopts ultrasonic pulse in treatment and combines with proper blood activating and gore decomposing ointment. Due to the mechanical function, heat effect and physical chemistry property of ultrasonic, it can properly massage blood vessels in distorted curve, soften thrombus, expense blood vessels, accelerate blood circumfluence, promote metabolism, rectify distorted micro vessels and gradually restore to the normal with effect of eliminating blush.
2. Soften sclerosis, eliminate fat and cure acnes: There are many types of acnes including purulent acnes and comedones. However some acnes are big, inflamed, hard and painful. They may easily get hard and form scars if not treated properly. As for these acnes, you'd better not puncture and press in the early stage. You'd better apply acne antiphlogistin and gently massage on the surface of acne with ultrasonic beauty machine. You may also massage one single acne or the area with several acnes. Ultrasonic can impact lymph, accelerate blood circulation and eliminate lymph liquid. Inflamed cells will transform under the influence of ultrasonic. Moreover with conduction of antiphlogistic by ultrasonic, it can mitigate hyperaemia of inflamed acnes and gradually soften skin sclerosis.
3. Eliminate flecks (Flecked) and fade splashes(patch): Ultrasonic can destroy inner film of splash cells, prevent them from forming and decomposing pigment, fade and eliminate flecks and splashes with metabolism; Ultrasonic can also enhance absorption of skincare products(e.g. Chinese Medicine Cream, High Unit Vitamin C and Speckle Eliminating Cream, etc.) With remarkable speckle eliminating effect.
4. Decompose gore (dissolve stasis)and stagnation: With the mechanical massage effect of ultrasonic, it can on one hand adjust hypodermal cells and enhance permeability of cell films, and on the other hand accelerate blood circulation and metabolism; It may take remarkable effect with proper skincare products of activating blood circulation and decomposing gore.
5. Eliminate under-eye pouch and dark circle: Because mechanical massage of ultrasonic beauty equipment can accelerate blood circulation and lymph circulation, it can thin and decompose fat, accelerate hypodermal absorption and dispel over accumulation of water and fat to eliminate under-eye pouch and dark circle additionally with the thermodynamic effect. (In eye treatment with ultrasonic

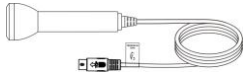
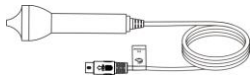
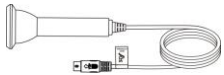
beauty equipment, it is required to massage by the probe as per the skin texture. Treatment of one under-eye pouch shall not exceed 5 minutes. It is required to massage gently and the probe shall not aim at eyeballs.)

6. Massage frequently to improve skin texture. It can eliminate speckles and acnes as soon as possible if treating skin properly with ultrasonic beauty equipment, and improve or recover skin texture and corticotrophin.

●Specification, Model & Technical Dat:

Product	Beauty Instrument
Model No	H2101/H2102/H2103
Functions	Ultrasonic Wave, High-Frequency Electrotherapy,
Nominal Working Voltage	ac. 100-130V / 220-240V
Nominal Working Frequency	50/60Hz
Output Power	20W
Ultrasonic Output Frequency	> 1000000Hz
Dimension (L*W*H)	442*412*147mm
Net Weight	2.35Kg

●Packing List

Name	Graphic	Quantity
Host Machine		1 Round
Power cable		1 Piece
Face (medium) probe		1 Piece
Eyes (pointed) probe		1 Piece
Body (big) probe		1 Piece
Instruction Manual		1 Copy

●Host Machine



●Accessories to Ultrasonic Wave:

1. Face probe

2. Plug for Face probe flexible cable

3. Face probe flexible cable

4. Eyes probe

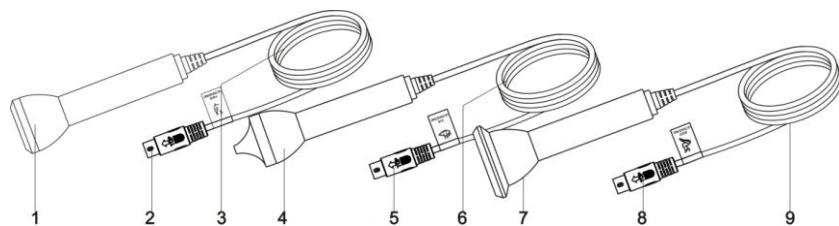
5. Plug for Eyes probe flexible cable

6. Eyes probe flexible cable

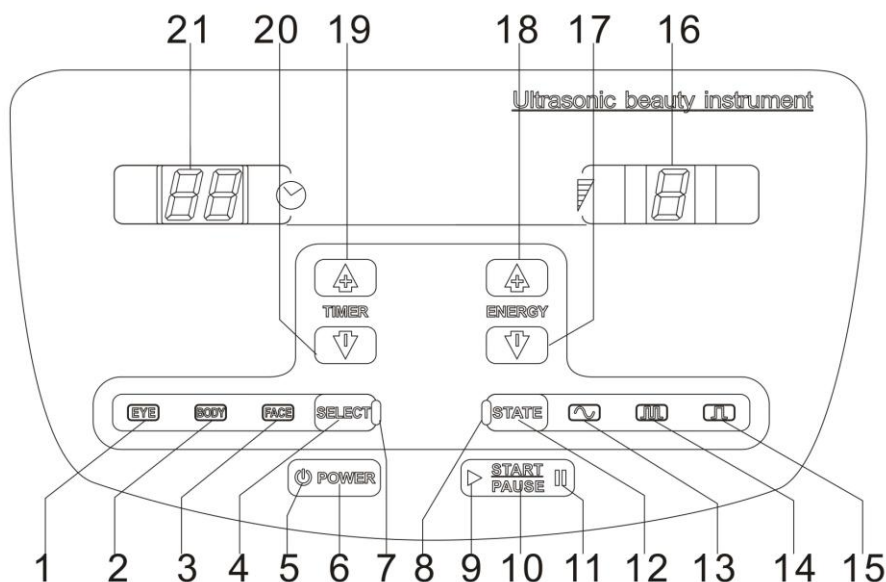
7. Body probe

8. Plug for Body probe flexible cable

9. Body probe flexible cable



●Introduction to Control Panel:



1. Eyes probe working indicator

2. Body probe working indicator

3. Face probe working indicator

4. Probe selection key

5. Power indicator

6. Power Switch

7. Probe selected function indicator

9. Start working indicator

10. Start/Pause

11. Pause indicator

12. waveform selection key

13. Continuous wave working indicator

14. Hybrid wave working indicator

15. Hybrid wave working indicator

16. Energy display

17. Energy decrease key

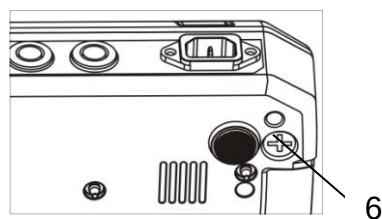
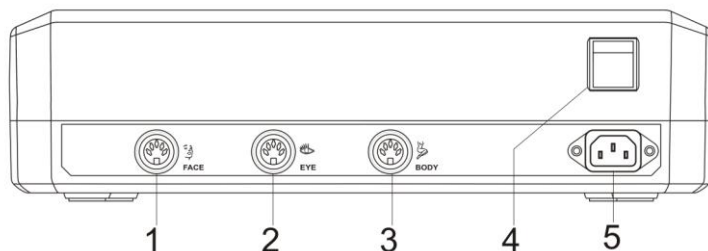
18. Energy increase key

19. Time increase key

20. Time decrease key

21. Time display window

●Introduction to Back Panel:

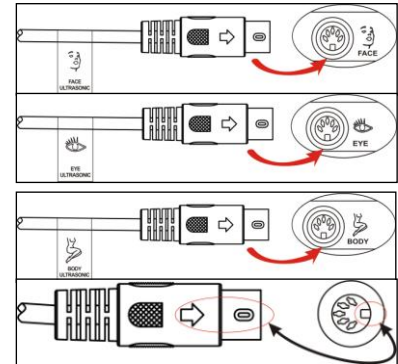


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|----------------------|----------------------|-------------------------|
| 1. Face probe output | 2. Eyes probe output | 3. Body probe output |
| 4. Main power switch | 5. Power input plug | 6. Protective tube plug |

●Connection Instruction:

1. Connect the power cable with host machine;
Plug-in separately flexible cables of ultrasonic wave probe with corresponding output at back of host machine.
2. Press the key "POWER" on control panel, indicator lights, host machine is stand-by.



>Time display "15";

>Energy display "5";

>Face probe working indicator **FACE** lights

>Continuously working status indicator  lights

>On the right side of start/pause  indicator lights

In this situation, press START/PAUSE key to turn on output of host machine.

3. Ultrasonic Wave Function Adjustment

Time setting: press key  " and  " for "TIMER" to set up the working time of host machine, time range 1~30 min.

Energy adjustment: press  " and  " for "ENERGY" to control the energy output of host machine, adjustment levels 1~9.

Output probe selection: press  key for ultrasonic wave control to select the output probe. >The indicator **FACE** lights meaning to the face probe is selected currently; indicator **BODY** lights meaning to the body probe is selected currently; indicator **EYE** lights meaning to the eye probe is selected currently;

Waveform output selection: press  to select output of waveform. The indicator  lights meaning to continuous wave output; if the indicator  lights meaning to hybrid wave output; if the indicator  lights meaning to board pulse wave output.

Start or pause output: under the status of stand-by or adjustment completes, press  to

start or pause the output from host machine; when the host is starting output, the start up working indicator  lights; when the host is pause or stand-by, the pause indicator  lights.

4. Prompt Volume Adjusting Functions

The prompt volume can be adjusted according to the using environment.

Adjustment: under status of stand-by, press " " key to turn off all displays on control panel (under condition of all indicators no light), press " " key for 3 seconds to enter the function of volume adjustment; Energy display "5" means default volume; press "Energy increase key"  to turn up the voice, and "Energy decrease key"  to turn down the volume, there are total 9 levels for volume adjustment; no any operation after you have adjusted the suitable volume, the host machine will automatically save the current setting after energy display flashes for 5 seconds, and return to the current status.

●Notice for Ultrasonic Wave Operation:

1. The probe should be kept clean; clean and sterilize the probe with ethanol or other agents after uses.
2. DO NOT use the probe toward eyes when uses ultrasonic wave.
3. The skin care essence should be supplemented in time if insufficient to moisturize the skin.
4. The nursing time should not more than 15min. and should be shorten appropriately for the small area to be nursed, too long time would cause tired of skin and is not good to absorb. The probe should not stay a long time on one part of skin area to prevent any skin lesion.
5. During the course of nursing, it should prevent a long time treatment under the condition of maximum energy output which will not only impact on the absorption of skin but even cause skin lesion.
6. The flexible cables for probes and instrument should be in order, DO NOT repeated twist.
7. If power cord is broken, please use the dedicated cable or from manufacture factory or maintain agency to change. We suggest using accessories from original factory.

●Daily Maintenance:

1. The flexible cables for probes and instrument should be in order, DO NOT repeated twist.
2. Be care of probe during using, and the probe after used should be sterilized and wiped dry, and kept in clean, dry.
3. The instrument should be wiped with dry dishcloth, DO NOT wet in water.
4. Please switch on the main power after using of instrument every day, and takes away the plug when

finishes a working day.

5. The instrument should NOT be placed in sunlight, raining, moisture, dust and smoke accumulated area.

●Warning!

When using ultrasonic wave function:

1. NOT allow to be no operation under input state of probe, otherwise it will cause overheat of probe and rapidly reduce the using life.
2. NOT try to separate the stainless steel probe and handle, if often rotate the stainless steel probe and handle may damage the probe.
3. Forbidden putting probe into water for clean which may damage the probe.
4. Forbidden using probe with damaged surface or serious scrape, it must be replaced in this case.
5. If there's any unusual circumstances happen, please contact to sales agent and invite professional service people to check, forbid to open host machine and repaired unauthorized.
6. It is forbidden to place or use it at bathroom of wet places.
7. It is forbidden to put it together with inflammable and explosive objects.

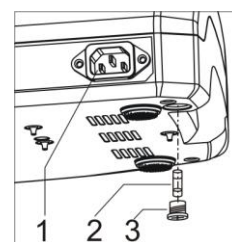
●Check List for Common Troubles:

S/N	Troubles	Causes	Remedies	Settlements
1	When the general supply at the back of the host machine is turned on, the power indicator is off and pressing "POWER" does not work.	The host machine has not been electrified	1. To check the protective tube of power supply. 2. To check the flexible tube of power supply is well plugged or not.	1. To change the protective tube if necessary. 2. To plug the cord of power supply again.
2	When the general supply is turned on, the light works, but when the host machine is moved, the light glints and the machine cannot be turned on normally.	Power input does not touch well	1. To check the plug of the flexible tube of power supply to see if it is connected well. 2. Whether the flexible tube of power supply is broken or not.	1. Poor connection: to plug the connecting plug between the host machine and electric outlet again. 2. If the flexible tube of power supply is broken, related parts shall be changed in specific

				maintenance center nearby.
3	After the host machine is set well and starting output, the chosen probe does not work.	The probe is not connected with the corresponding output port.	To choose the corresponding output port by pressing "SELECT" to start the probe.	To plug the probe in the corresponding output port.
4	Output indicator works and the host machine outputs normally, but accessory probe does not work.	- Accessory probe is broken. - Output of the host machine fails.	To test by plugging good probe into corresponding output port ("SELECT" shall be corresponding with output port.). To regulate the energy to Shift 5, but not over Shift 5. If the probe works, it means the accessory is broken; otherwise, the host machine fails.	- To change the broken accessories. - To send the host machine to specific maintenance center to repair.

●**To change protective tube:**

Disconnect the power of the host machine first. The cover of protective tube shall be unscrewed by a screwdriver. Check the protective tube inside the protective tube case near to the power supply socket of the host machine, and change it with a new 250V/4A protective tube if it is damaged.



(As shown in Fig.: 1.Electric outlet 2. Protective tube 3. The cover of protective tube).