Get Started

To start the laser unit, turn the main power switch ON. Immediately the power indicator will be green with the system fans working. At the same time, the LCD screen lights up as the picture shows below.

After this interface, the system will perform a self-check. If there are problems during startup, the system will inform you at the display about the problems. System needs about 8 seconds to setup. If it as any alarm, please confirm all necessary parts have connected with right position.

You must input password before entering into the system. Initial password is "0000" entering into the laser system. By pressing the "modify password" button you can modify the laser system password from 0 to 9 (The Wireless footswitch configuration password cannot be modified).

Wireless Footswitch Configuration

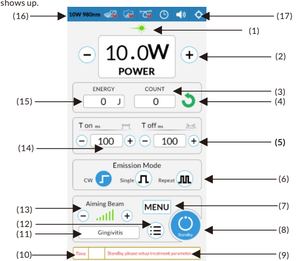
Initial password "739" entering into Wireless footswitch configuration.
Read the information on the screen carefully, install the footswitch then press "Pairing" icon on the screen and the Pairing Button on the footswitch to start the pairing of footswitch and laser console.

After the pairing completed, press the footswitch to test, when the indicator light turns green, it means the pairing is successful.

The Wireless Footswitch Configuration can only be used in the condition of changing another wireless footswitch or changing the Battery.
In the default condition, no configuration for the users.
The button battery of the wireless footswitch need to change if it has replacing indicator.
If the pairing is failed, try another wireless footswitch.

Main Menu

Inputting the laser system password, you will get into the laser system as the main menu interface shows up.



(1) Laser output –when Laser emitting, It turns to red.
(2) Set power – Set laser power, from 0.1W to 7W/10W, step is 0.1W.
(3) Laser pulse count – Show total laser pulse count.
(4) Reset the energy
(5) Laser on – In pulse mode, the time is laser emitting time in one pulse.
(5) Laser off – In pulse mode, the time is laser stop time in one pulse.
(6) Laser emission mode
CW - continuous laser output
Single - press the footswitch, only one pulse laser out
Repeat - press the footswitch, multiple pulses laser out
(7) Menu-go to the system information page
(8) Standby/Ready
(9) Message and status –show system message, alarm and other information.
(10) Timer –When the timer is active, the time is countdown, otherwise the time is add.
(11) The selected proposal
(12) Preset proposals
(13) Aiming beam intensity
(14) Laser on time – In pulse mode, the time is laser emit time in one pulse.
(15) Laser energy – Show total laser energy.
(16)Laser power & wavelength – 10W 980nm.
(17) State bar – Show the option status.

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System information

In menu interface pressing "Settings" icon, you will go into user setting interface. In this interface, you can set the speaker sound, LCD back light. And you can enable/disable the timer. When timer is on you can set the timer value. In this interface by pressing "Back" icon, you can back to the main menu.

If you want to learn about the system information please press the "Info" icon in menu interface.

Calibrate laser power

If you press the "Calibration" button, the calibration interface will show above.
Test Power: Before laser test, this power is the MAX power of the CHEESE Ⅱ.
Max Power: the value of the tested power.
Save: After you make sure the CHEESE Ⅱ testing power is near to the power meter testing result, save the result the memory and finish the calibration.
Reset factory setting: Restore the laser power setting as the factory setting, don't want to keep the calibration result.
Calibration step:
(1) Open the laser power detect aperture.
(2) connect the fiber. (It's better to use the new fiber.)
(3) Wear the safety goggles.
(4) Press "Test Power" button, the button will turn yellow meanwhile the aiming beam will be on.
(5) Press the footswitch, and hold it, until it finish.
(6) When the process bar is over, the power detect is finished. And then you can release the footswitch and read the value of the laser power.
(7) Use the power meter to test the laser power again.
(8) If the test results are very nearly, you can make sure the test result is correct. Press the "Save" button to save the test result.

Before calibration, please make sure that there is an accurate power meter. Only when the CHEESEII testing result is near to the power meter testing power, can you begin to calibrate.
(1) If the test power is too low (<50%), the calibration will not be going on.
(2) After calibration, the CHEESE Ⅱ MAX power will be changed. If the calibration power is lower than the old MAX power, you can only save the lower as the MAX power.

GIGAA LASER

CHEESEII
Quick User Guide

Wuhan Gigaa Optronics Technology Co.,Ltd.

Before operating the unit, please read the instructions completely and save them for future use.

Laser Safety

To avoid any injuries it is important to follow the laser safety instructions:

Handle every part with care.

1. Any user of the CHEESEII laser system has to be trained by GIGAALASER authorized personal or by someone trained by GIGAALASER authorized personal.

2. The room / the area, where the laser system is used has to be signed with the laser warning symbols in a way that everyone can easily see that there is a laser area, which should not be entered without the adequate protection while the laser is in use.

3. Do not use the system whenever you are not sure that every component works in the dedicated way. Keep an eye on the fiber delivery: The spot shown by the aiming beam should always be round and defined, no scattering should occur. You may test this by using a light paper and holding the connector fiber end in a distance of about 5 cm (you have to put the laser on Ready mode, with laser safety goggles).

4. Whenever the laser is on Ready mode (Yellow Ready- on) every person within the area where radiation from the laser can occur (laser treatment area / laser room) has to wear laser safety goggles which is suitable to protect the eyes from laser radiation.

5. The laser has to be used only for the defined application; never irradiate any other material / tissue beside the intended use.

6. Special care should be taken to avoid irradiating reflecting materials. Reflected laser radiation can cause the same harm as direct application.

7. Switch the Ready mode to Standby mode of the laser when the laser is not in use; e. g. during operation breaks or at the end of the surgery.

Wuhan Gigaa Optronics Technology Co Ltd

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Authorized Representative: Lotus Global Co., Ltd
CE certificate by: TÜV Rheinland LGA Products GmbH
Certificate No.: 15057712 001
FDA 510K number: K142078

Technical Specifications

Laser Type	**GaAlAs-Semiconductor laser**
Model	**CHEESEII-7A/10B**
Wavelength	**810nm/ 980nm ±10nm**
Output power	**0.1W-7W/ 10W**
Operation mode	**CW, Single, Repeat**
Pulse width	**1ms-1000ms or continuous**
Delivery system	**Core Size (Use only approved systems)≥200μm**
Numerical Aperture	**NA = 0.22 ~ 0.48**
Fiber Connector	**SMA 905 (International Standard)**
Aiming Beam	**Diode laser of 650nm±10nm, 4mW (max), adjustable brightness.**
Laser Class	**4**
Operation interface	**Color LCD touch screen**
Power Supply	**Model: FSP105-KGAM1 Input: 100-240Vac 1.4-0.7A, 47-63HZ Output: 15V ⎓ 6.79A Max**
Cooling	**Air cooling & TEC**
Safety classification	**ClassI Type B**
Dimensions	**265x 200x210mm (H*W*D)**
Weight	**3 kg**
Operating Temperature	**10℃ ~ 35 ℃**
Storage/Transport Temperature	**-10℃ ~ +50℃**
Humidity	**Storage/Transport : 10% - 80%, Operating: 30% - 60%**
Waterproof level	**IPX1**
Footswitch Waterproof level	**IPX8**
Safefy Compliance	**Ce0197**

Note: Your features may vary depending on the model of CHEESE II you have.

Overview

Laser output is use to connect the fiber& handpiece set. Please confirm the fiber& handpiece set connector is dry& clean, otherwise the lens of laser diode will burned, this situation is not in the free warranty.

Fans need to keep clean.
Interlock can be connected to the treatment room door. If the interlocked door is opened, the system will stop.
Wire footswitch socket to connect the wire footswitch.

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Accessories

The following accessories are included with CHEESE II .

Failure Detection

Problem	Possible Cause	Action
Unable to start	Not plug in the external power	Plug in the external power
	Emergency Stop button is pressed	Turn the "Emergency Stop" button back to the normal position
	The fuse is burned	Take off the power line to cut off the power, and check the fuse.
	Adapter has problem	Change a new adapter
Start with first page and cannot go on	Bad connection	Clean the RS232 connectors (which connect the unit and the LCD)
Self-checking alarm	Footswitch detection error	Connect the footswitch (The laser unit need to identify which footswitch will use, the user have to press down the footswitch then release it.)
	Interlock detection error	Connected the interlock
	Fiber connect detection error	Connect the fiber or handpiece set
	LD temperature detection error	Laser unit need turns off over 10 mins
Laser working alarm	Power supply error	Laser unit overload, set the output power lower
	Interlock not connected	Change a new interlock
	Footswitch not connected	Change a new footswitch
	Fiber not connected	Change the fiber or the handpiece sets
		Change a new laser diode
	Temperature is high	NTC has bad connection
		Room temperature should less than 30℃
	Temperature is low	Room temperature should more than 15℃
No aiming beam or the aiming beam is weak	Laser is on "Standby" mode	It has aiming beam when the unit is on "Ready" mode
	Fiber or optical part has problem	Change the fiber or the handpiece sets
	Aiming beam status is "OFF"	Change the status to "ON"
No laser output or the output power is low	Drive board has problem	Change a new drive board
	Lens of laser diode burned	Change a new laser diode
	Laser diode broken	

Don't open the unit and don't attempt to repair the unit yourself without GIGAA permission.