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illuvia laser system

Quick User Guide



LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT SCATTERED RADIATION
CLASS 4 LASER PRODUCT

SCAN HERE for your User Manual!

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Pivotal Health Solutions®

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

* Only for sale in the US *

Version:03.27.2026



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 illuvia laser system must be trained by an authorized person or by someone trained by an authorized personal.
2. The room or the area where the laser system is used must include a sign with the laser warning symbols that can be easily seen. A warning should be shown in which individuals should not enter without adequate protection while the laser is in use.
3. Do not use the system if the system is not working properly. Keep an eye on the laser: The spot shown by the aiming beam should always be round and denned; no scattering should occur. You may test this by using light paper and holding the laser at approximately 5 cm (you must 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 must wear proper safety goggles.
5. The laser must be used only for the denned application; never use 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 from Ready mode to Standby mode when the laser is not in use, during operation breaks or at the end of use.

Eye Protections

Safety goggles can protect the eyes from the hazardous, reflected or scattered high-powered laser light (radiation): Class 4 laser systems.



Attention!

Do not look into the laser beam or reflected or scattered light of the laser beam. Never look directly into the output of the fiber optic or the output of the laser handpiece. Otherwise damages of the retina could occur.

To avoid any eye injuries. All the people, including patients, need to wear safety goggles as soon as the laser is turned on.
The safety goggles which have already been registered in U.S.A. are applied. The safety goggles parameter must satisfy the following:
Protection Level: 630-660nm 800-1100nm
Typical Wavelength: 635nm/810nm/980nm ±10nm.
Lasers: Diodes
Optical Density (OD): 630-660(002+) 800-1100(005+)

Technical Specifications

Laser type	GaAlAs diode laser
Model	GBOX-15AB
Wavelength	810nm±10nm；980±10nm
Output power (Max.)	810nm: 1W-15W(±10%), adjust step:0.1W 980nm: 1W-15W(±10%), adjust step:0.1W 810nm+980nm: 1W-15W(±10%); adjust step:0.1W
***S*t of Output power**	≤10%
***R*p of Output power**	≤10%
Operation mode	CW, single pulse, repeat pulse
Beam divergence	Working beam: 25° Aiming beam: 25°
Pulse width	25μs-10s
Application systems	PM V Therapy Handpiece：Type B applied part With SMA905 connector core diameter : 600μm
Transmission system	Handpiece of 600μm with SMA905 connector;
Aiming beam	Diode laser of 650nm, power<5mW, adjustable brightness.
Operation interface	Color LCD touch screen
Power supply	Input: 100-240V~, 50/60Hz, 3A MAX. Output： DC 15V, 15A
Laser Class	4
Safety classification	Class Ⅰ Type B
Cooling	Air
Dimensions	265(W)*270(L)*120(H)mm
Weight	4.2kg
Waterproof level	IPX0
Footswitch Waterproof level	IPX6
Operating Environment	Temperature is 5℃~30℃, relative humidity is less than 80%, and atmospheric pressure is 860hPa~1060hPa.
Storage Environment	Temperature is -20℃~55℃, relative humidity is less than 80%, and atmospheric pressure is 500hPa~1060hPa.

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

Product description

Front



Color Touch Screen

The LCD touch screen of the unit features high sensitivity and high resolution, using a finger or touch screen pen to operate.

Attention!

Do not put heavy objects on touch screen, apply excessive pressure or get the touchscreen wet. Avoid touching the screen with any sharp materials.

Check the fiber and handpiece set connector is dry and clean to avoid burning of the lens of the laser diode.

Rear Side Panel

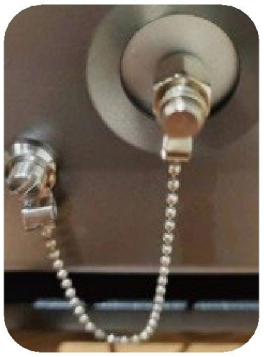


Power supply port

Connect the power adapter, note the insertion direction as shown in print, with the flat head inserted up.



Laser Aperture



The laser aperture is designed with a standard SMA-905 connector. Make sure that the fiber is connected properly; an alarm indicator will alert if the fiber is not correctly connected.

The aperture protective cover acts as the protection for the laser aperture. Make sure To cover up the laser aperture immediately to avoid any contamination from dust, liquid or other substances. This will eliminate the decrease in output power and any damage to the inner laser system.

Warnings! **Do not remove the fiber during the use of the device. Fiber cannot be steeply bent; the bend radius must be more than 15cm.**

Attention! **Do prevent the laser aperture from the contamination of dust, liquid, oil or any other material. Otherwise, the output power of the laser will decrease or even the inner laser system will be damaged.**

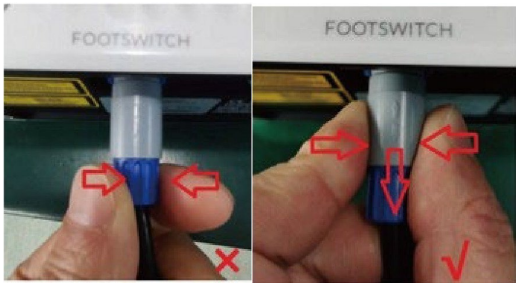
Interlock and Footswitch

Attention! **Please pay attention to inserting and pulling out the footswitch and the remote interlock connector.**



There is an arrow mark on the connector. Insert the footswitch with the arrow mark facing upward as the picture shows above.

When pulling out the Power supply or footswitch or interlock connector, please hold as indicated and pull out vertically and steady.

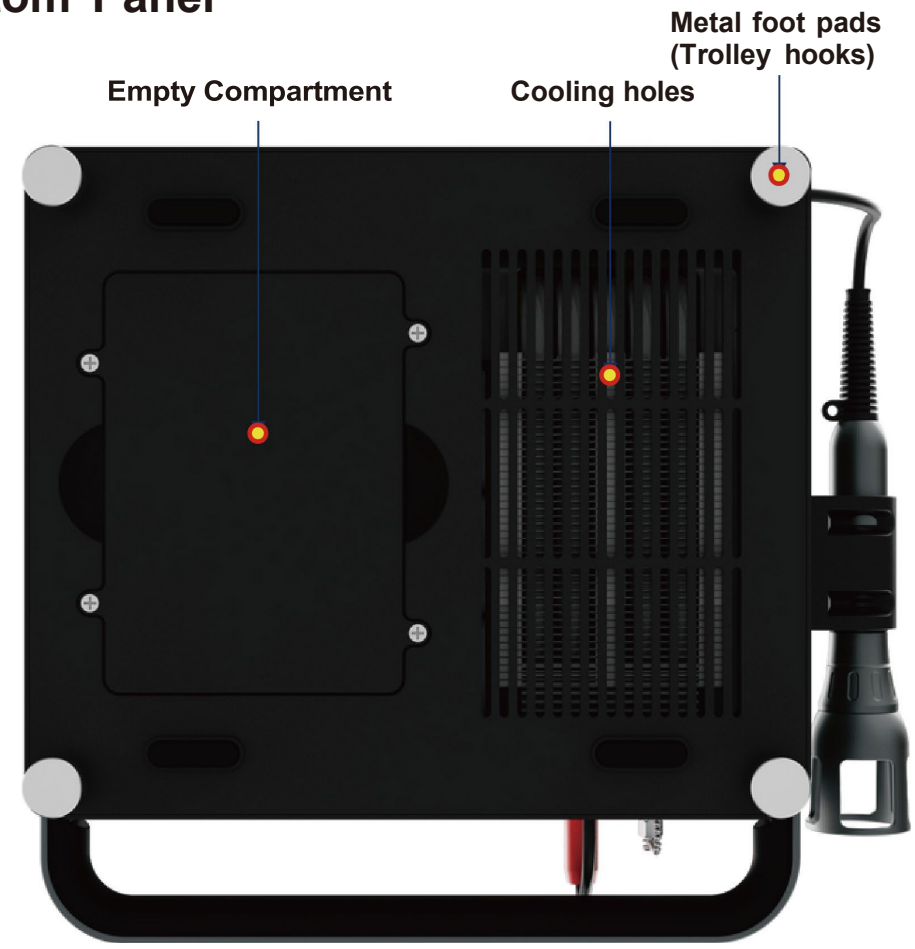


USB Port

Used to upgrade the programs or pictures.

Warnings!
Fans should be kept clean.

Bottom Panel



Failure Detection Need to identify user streps vs contact service steps.

Problem	Possible Cause	Action
Unable to start	External power not plugged in	Plug in the external power
	Emergency Stop button is pressed	Turn the "Emergency Stop" button back to the normal position
	The fuse is burned	Turn off the unit and check the fuse
	Adapter has problem	Change a new adapter
Start with first page and cannot go on	Bad connection	Contact service
Self-checking alarm	Footswitch detection error	Connect the footswitch (The laser unit needs to identify which footswitch will use; the user must press down the footswitch then release it.)
	Interlock detection error	Connected the interlock
	Fiber connects detection error	Connect the fiber or handpiece set
	LD temperature detection error	Laser unit needs 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 foot switch
	Fiber not connected	Change the fiber or the handpiece sets
		Contact service
	Temperature is high	Contact service
		Room temperature should be less than 30°C
	Temperature is low	Room temperature should be more than 15°C
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	Contact service
	Lens of laser diode burned	Contact service
	Laser diode broken	



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

Get Started

To start the laser, press and hold the main switch. The power indicator will turn green, the fan will turn on and the LCD will turn on.

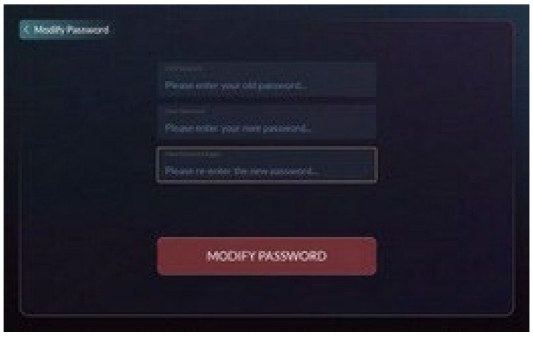
To ensure proper and uninterrupted operation of the device, the following requirements must be met:
The device must be connected to an appropriate electrical power source.
Protective safety goggles must be available and worn by all personnel in the room.
The handpiece must be securely attached to the laser aperture.
The PMS footswitch must be properly connected.
The emergency laser stop switch must be in the released (extended) position.
Please verify that all items above are confirmed prior to initiating the procedure.





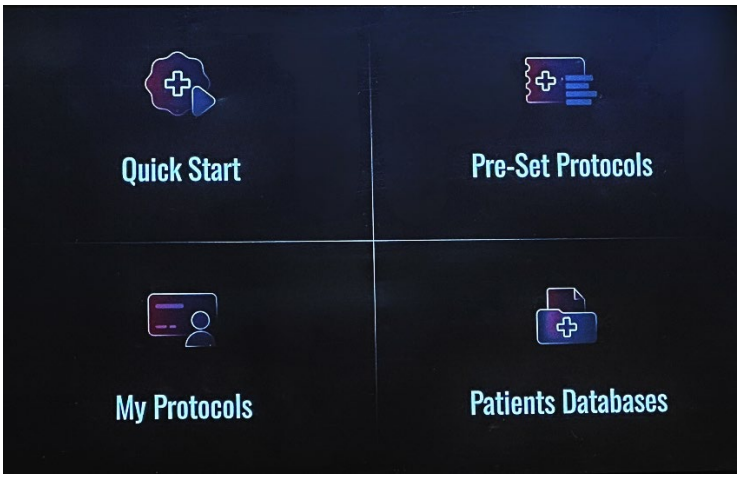


You must input a password before entering the system; the initial password is "111111".



You can modify the password by pressing "MODIFY PASSWORD." If you want to reset the password, press "enter your password" 5 times, and the password input interface will appear.

Physical Therapy Laser System



When the password "111111" is entered, you will be entered into the Human Physical Therapy Laser System. **In** the Main menu, there are four guide icons for the sub interfaces: Quick Start, Preset Protocols, My Protocols and Patient Databases.

Quick Start

In this operation mode, you can start the treatment relatively quickly. You can set the laser wavelength, the output power of the selected wavelength, and the laser time. The laser wavelengths that can be selected are 808nm+980nm and the corresponding max output power are 15W+15W. Total max power is 30W. The longest the laser time can be set is 30 minutes.

Warning: use a painting technique to prevent any spot from getting too hot.

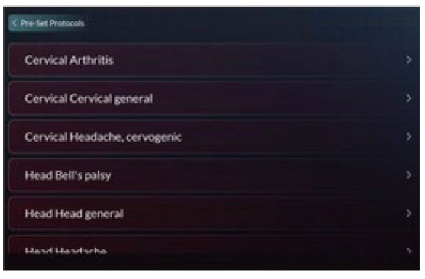


After the parameters are set, press "STANDBY" to enter "READY" mode. There will be an animation to remind you to put on the Safety goggles again, then treatment can again be started.

Pre-set Protocols







By clicking "Pre-set Protocols" on the main menu, you can get to the first screen shown above. By clicking the red circles on the" Head", for example, you **will** get the parameter setting screen shown in the middle image above. After inputting the patient information, click the 'TREAT' icon to see the corresponding Sub-Protocols List as shown in the image to the right above. There are nine subprotocols to choose from. **If** you click "Cervical Arthritis", for example, you can enter Patient Information and the related treatment process, which can be saved into the Patient Database. If you do not input the Patient Information, the treatment process can only be saved into the My Protocols. You must, however, set the age, BMI and skin color.

Main Menu



(1) The Selected protocol name and Patient information

(2) The Treatment Phase and to add a new Treatment Phase. The quantity of treatment phases cannot exceed 10. By clicking the (9) PLUS ICON, you can add a new phase.

(3) Average Power and Peak Power; which are for the whole treatment process.

(4) Applied energy and Total Energy; Applied energy refers to the total energy the laser will emit of the current treatment phase; the Total energy refers to the total energy the laser will emit of the whole treatment process

(5) Power Setting; by clicking the up or down buttons, or the circle on the power bar to set the power value. The power setting range refers to "Specification."

(6) Duty; when the Frequency set value changes, the duty can be set in different ranges.
ISP MODE, please operate here.

(7) Frequency; which can be set from 0Hz to 20000Hz. When the frequency set as 0Hz, The operation mode is CW MODE.

(8) Standby and Ready

(9) Save and home

(10) Current time and Total time; Current time refers to the treatment time of the present treatment phase; the Total time refers to the total treatment time of the whole treatment process.

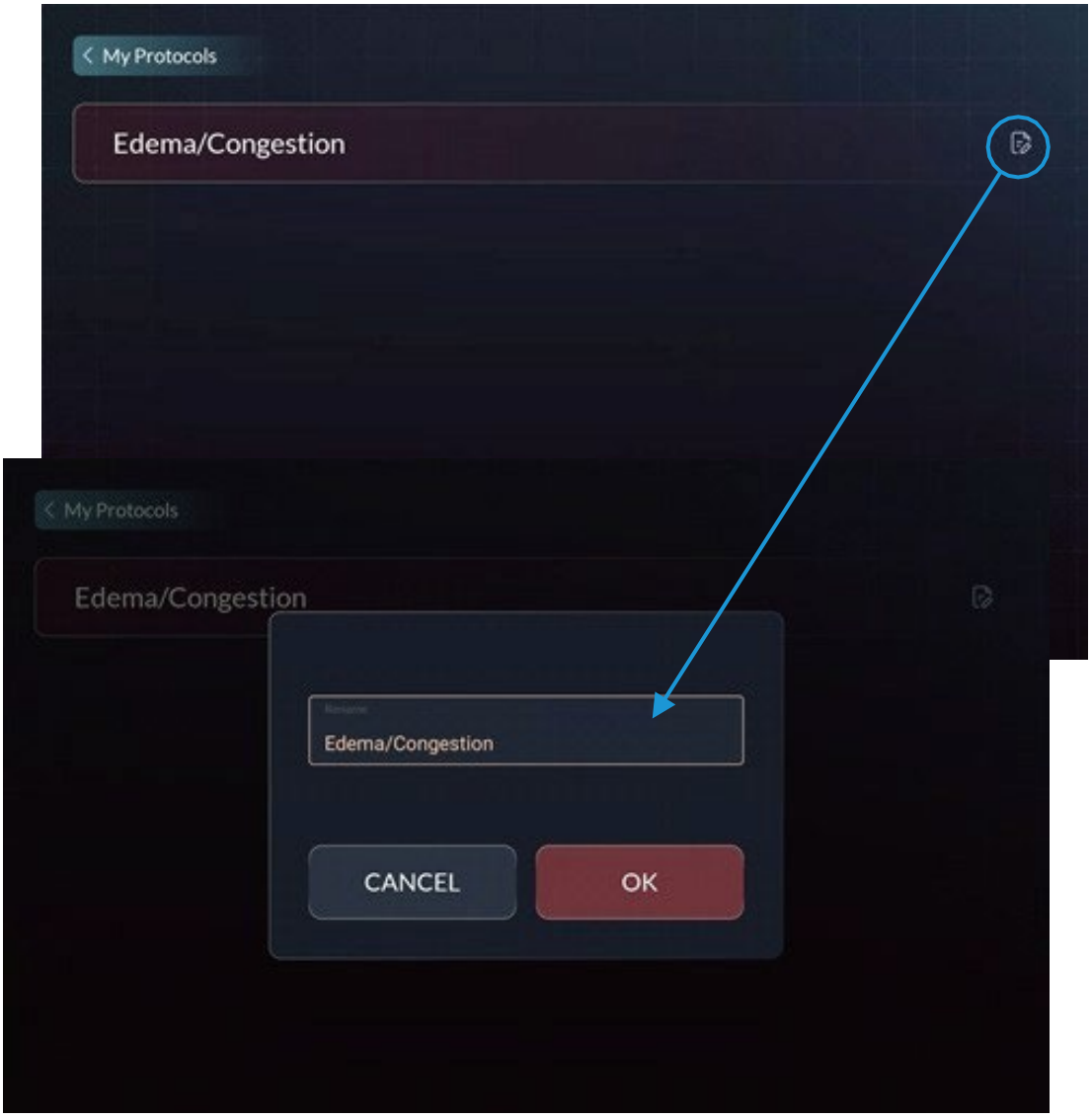
Attention!

One or more laser wavelength can be selected as you need.

After the whole treatment process ends, the system will show the following interface to remind you to save the Therapeutic protocol parameters. Clicking to save the related treatment process to Patient Database or My Protocol.

My Protocols

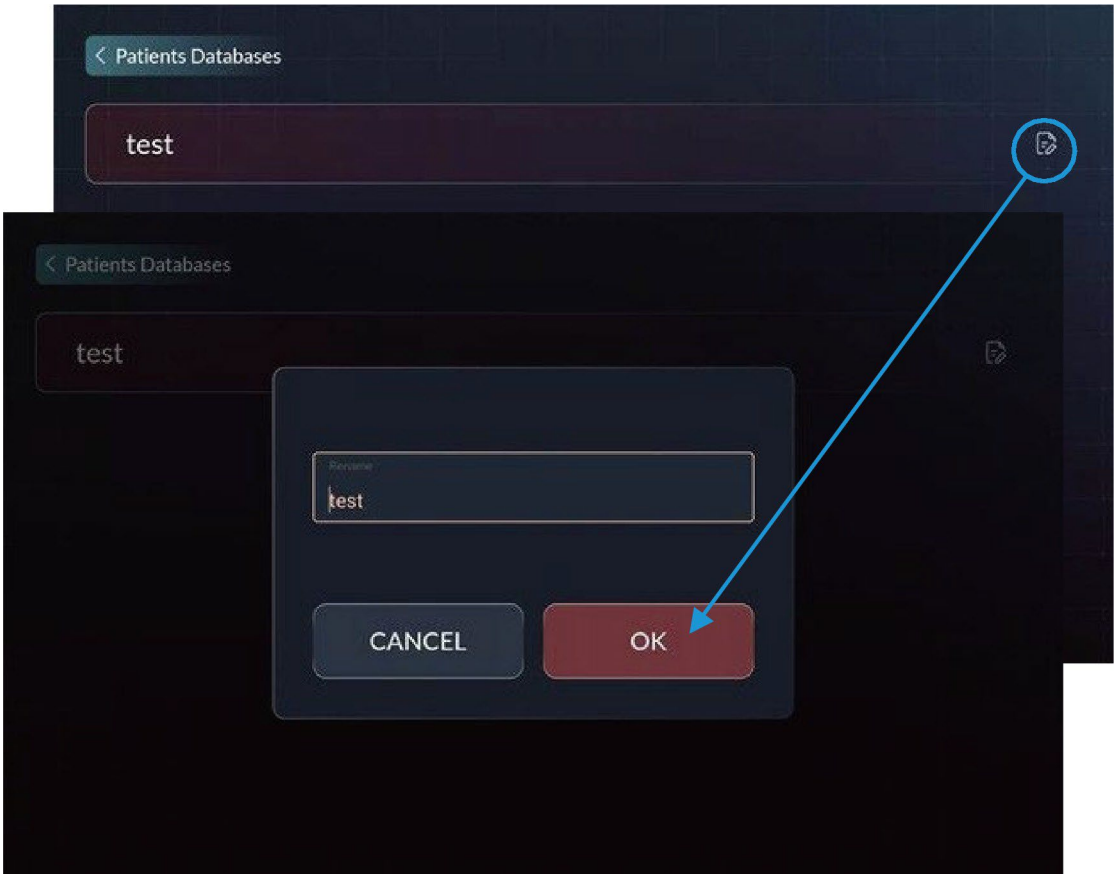
By clicking the "My Protocols"icon in the Main menu, you can get the following interface to see the protocols you saved. Clicking the protocol name, you can get the corresponding Parameter setting interface to check adjust the treatment parameters. If you want to rename the protocol name, click the icon  behind the corresponding protocol name.



If you want to delete a protocol, press and hold the protocol name and the system will give you a warning indicator confirming whether to delete the selected protocol or not.

Patients Database

By clicking on the "Patients Database" icon in the Main menu, you can get the following interface to see the patient information you saved. If you want to rename the patient's name, click the icon - behind the corresponding patient's name.



Clicking the patient's name will allow you to go to the corresponding patient information including the name, age, gender, skin level and treatment record, as shown below. By clicking the ••• icon, you can get the details of the related protocol, as shown on the right below. By long pressing the protocol name, you can delete the selected protocol, and by clicking on the protocol name, you can get the related parameter setting interface.



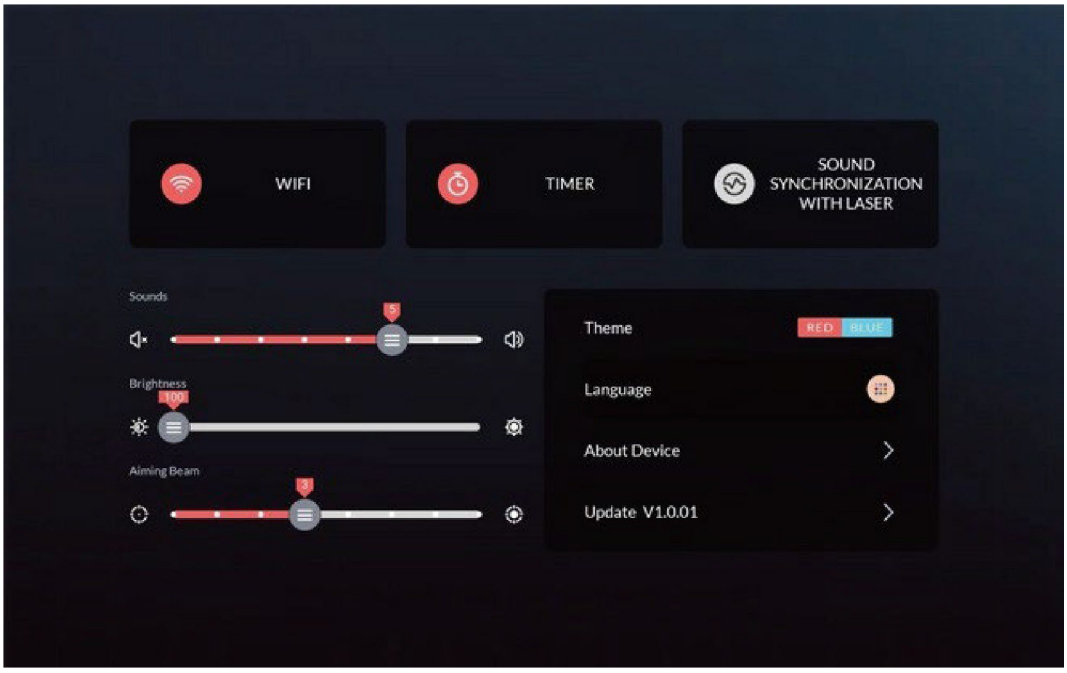
(a)



(b) (c)

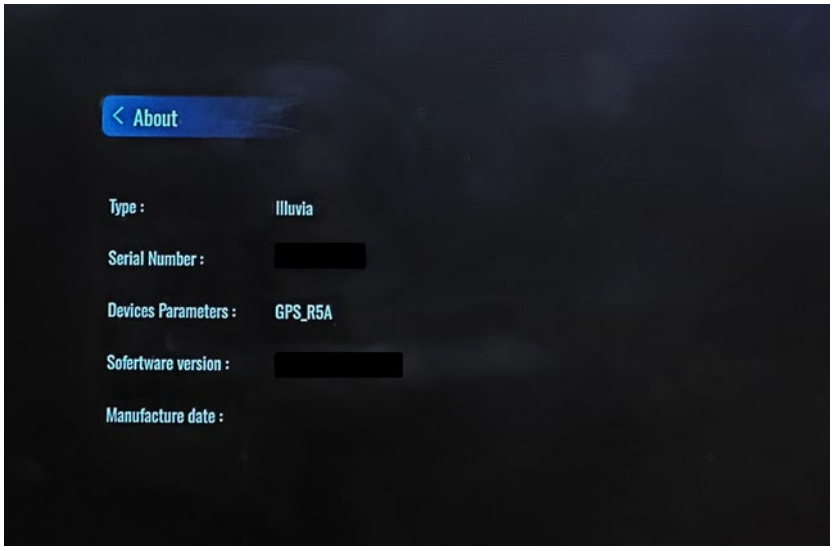
Device Settings

Setting



On all screens, except for the Password Interface screen, slide on the screen with your finger top to bottom, and you will get the Device Setting Guide interface. In the Guide interface, you can set the WLAN, sound, back light and aiming beam. You can set laser sound language, check the device information, and show the software version.

System Information



If you want to learn about the system information, please press "About

Laser Emission

After finishing setting the parameters, press the "Ready" button and the system will remind you to wear the safety goggles (protect wavelength from 800nm to 1100nm). At this time when you press down the footswitch, the laser will emit.

NOTE:

Always wear safety goggles when operating the laser or working nearby.

Shutdown of the unit

Do not modify this equipment without authorization of the manufacturer.
(1) Put the device into "Standby" status.
(2) Click the main switch at the side of the unit, and according to the prompts of the interface; Select the consent shutdown.
(3) Rotate the fiber optic connector to remove the optical fiber and cover aperture protective hat immediately. If the usage frequency is high, the fiber optic connection can be maintained.
(4) Unplug the adapter plug.

Warnings!

Do not modify this equipment without authorization of the manufacturer.



IEC/EN 60825-1:2014
Working beam:
810nm, Max,15W
980nm, Max,15W
810nm+980nm, Max,30W
Pulse duration: 10μs~3s

Aiming beam: 635 nm, <5mW
Continuous radiation

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