

All In One UV Laser Water Cooled Type

User Manual

Preface

The manual instructs the product installation, operation, interface definition, software operation, marking parameters, etc.

If you use the product for the first time, please read the manual carefully before install and use it.

Please keep the manual well, so it can be read in future.

Please keep the packing box and accessories safe. When the laser need returning to factory or shipping, please use the original package to avoid damage.

Laser hazard prevention measures

In order to ensure safety during operation, please take below measures:

1. operator is prohibited to take jewelry or other reflective stuff, laser may be reflected to damage eyes;
2. operator is highly suggested to wear laser protection suit and goggles;
3. In place where laser is used, please paste laser warning mark;
4. It's suggested to use the laser in an enclosed room to prevent laser cavity leakage.

Company Profile

Shenzhen Gainlaser Laser Technology Co.,Ltd is a high-tech enterprise, which specializes in DPSS nano-second UV laser, DPSS nano-second green laser, galvo scanner and UV / green laser marking machines in Shenzhen, China. We have a complete product line of all solid state laser, complete machining and metal-sheet processing capabilities and strong related auxiliary capability. We produce products in batch to ensure punctual delivery of solid laser.

Our after-sale service system is complete, which responds quickly to the needs of client after-sale services.

Shenzhen Gainlaser Laser Technology Co.,Ltd obeys 'quality first' product concept and 'innovation driven' development concept, and provide high performance solid laser products. Meantime, we hope to strive with peers in laser industry together to improve the depth of laser application, social production efficiency and make contributions to laser application industry.

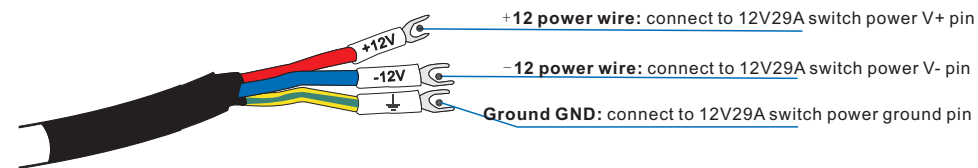
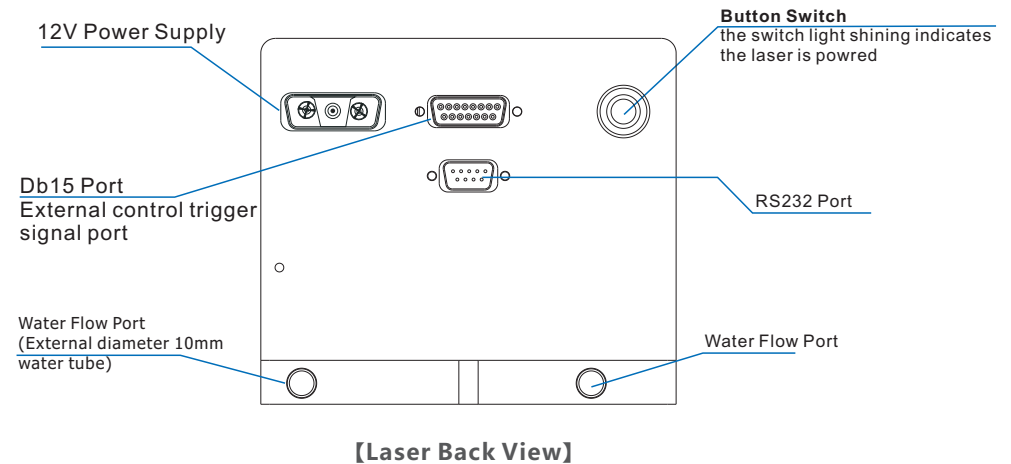
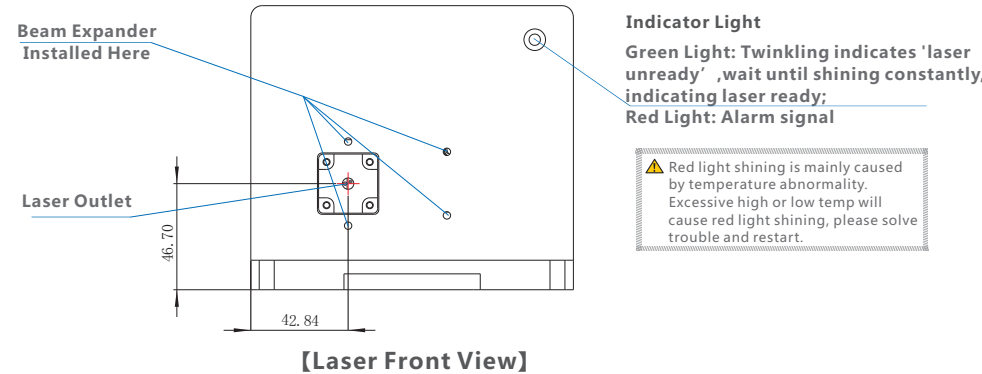
Gainlaser Laser User Manual

1. Installation & Operation

1.1 Laser Port Instruction

⚠ Important Note:

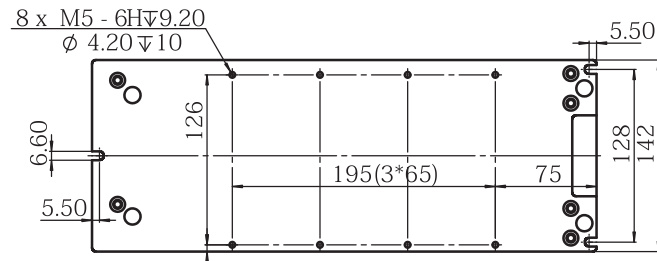
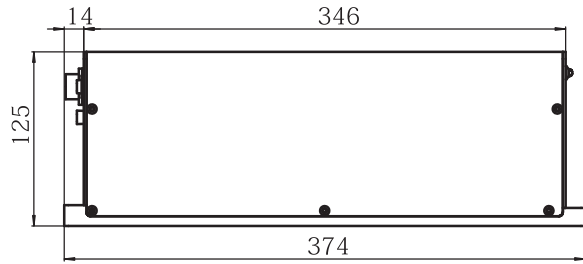
1. Non-professional is prohibited from operating the laser;
2. Must read the user manual carefully before operation;
3. It's absolutely prohibited to put eyes or any part of body in front of the laser outlet;
4. Must wear protective goggles to operate the laser;
5. Ebsure no shelter in front of the laser outlet before operation;
6. If any trouble, please get contact with local agent or our company;
7. Ensure the laser is ground connected.



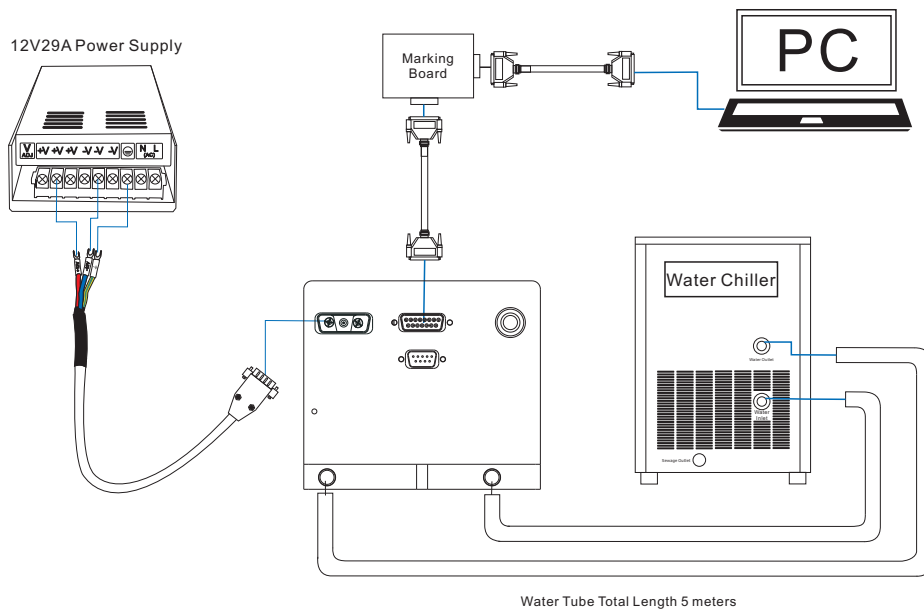
[Power Wiring Method]



1.2 Laser Installation Drawing



1.3 Hardware Connection



1.4 Turn On & Off Step

Turn On: Startup power supply - Button switch lights up - Press button switch - Green light twinkles - wait until green light shines, then the laser is ready to work

Turn Off: Press button switch - green lights is out - shutdown power supply.

2. Technical Parameter

Gainlaser 3W UV laser basic parameters and recommended configuration:

A. Marking plastic: 1) 3*beam expander + 110*110mm field lens;

2) 3*beam expander + 175*175mm field lens; 3) some use 8*beam expander.

B. Marking glass: 8-12*beam expander + small field lens(110*110mm and smaller)

Material	Speed	Freq	Pulse Width	Hatch
ABS PC	1000	20	40	Line distance 0.04
ABS PC	1000	15	50	Line distance 0.04
ABS PC	2000	11	75	Line distance 0.03
ABS PC	1000	15	1	Line distance 0.04
ABS PC	1000	85	1	Line distance 0.03
PP	800	15	55	Line distance 0.04, multiple marking, small lens
Metal	1000	16-30	1	Line distance 0.04
Glass Marking	200	15-30	1	Line distance 0.04
Glass Marking	500	15-30	1	Line distance 0.01
Glass Cutting	500	30	1	0.01, no lineation, cutting line filled, multi marking
Removing Varnish on Plastic	500	100-150	1	0.04, slight upper offset-focus, big expander, multi marking
Removing Varnish on Glass	1000	25-40	1	0.04, slight upper offset-focus, big expander, multi marking

Remark: due to material surface characteristic difference, the above parameters is for reference only!

3. Laser Interface Definition & Board Connection

3.1、RS232 interface pin definition

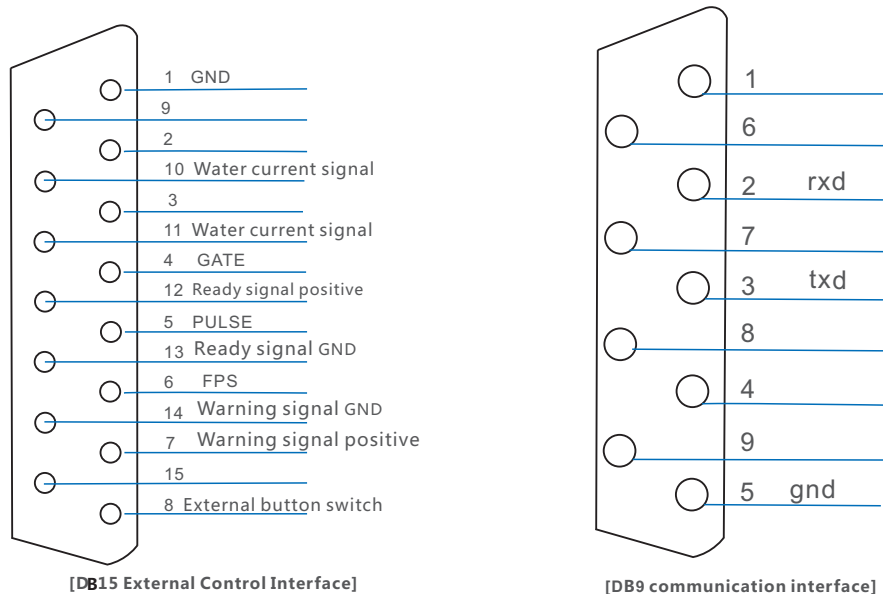
The interface is RS232 DB9

Pin No.	Name	Instruction
1	Vacant	
2	rxd	
3	txd	
4	Vacant	
5	gnd	

3.2、 External Control Trigger Signal Interface Pin Definition

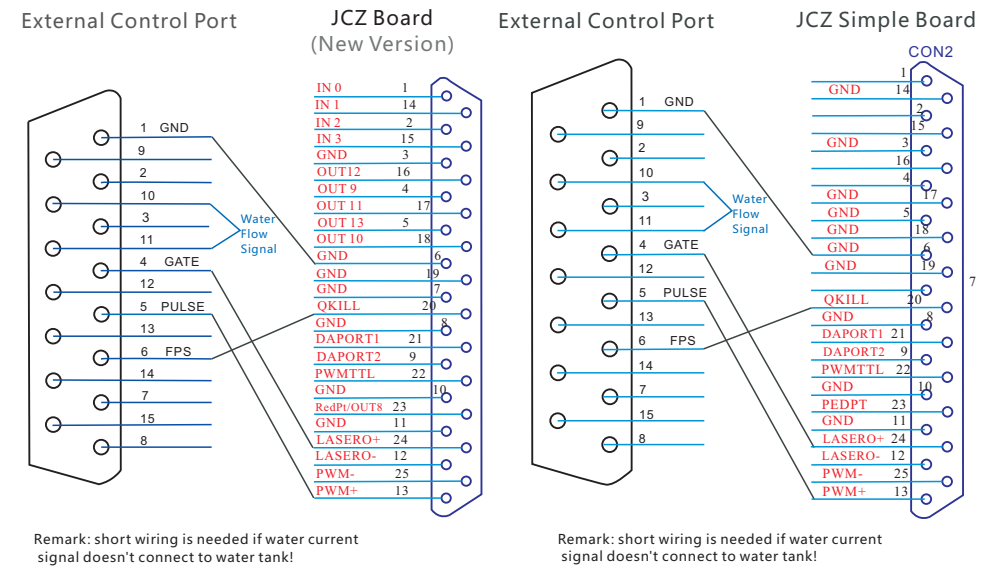
Pin No.	Name	Remark
1	Common Earthing (GND)	
2	Vacant	
3	Vacant	
4	Emitting laser signal	GATE
5	Freq trigger signal	PULSE
6	Initial pulse suppression trigger signal	FPS
7	Warning signal positive	
8	External button switch	
9	Vacant	
10	Water current	
11	Water current	
12	Ready signal positive	
13	Ready signal GND	
14	Warning signal GND	
15	External button switch	

3.3、 External Control Interface Definition

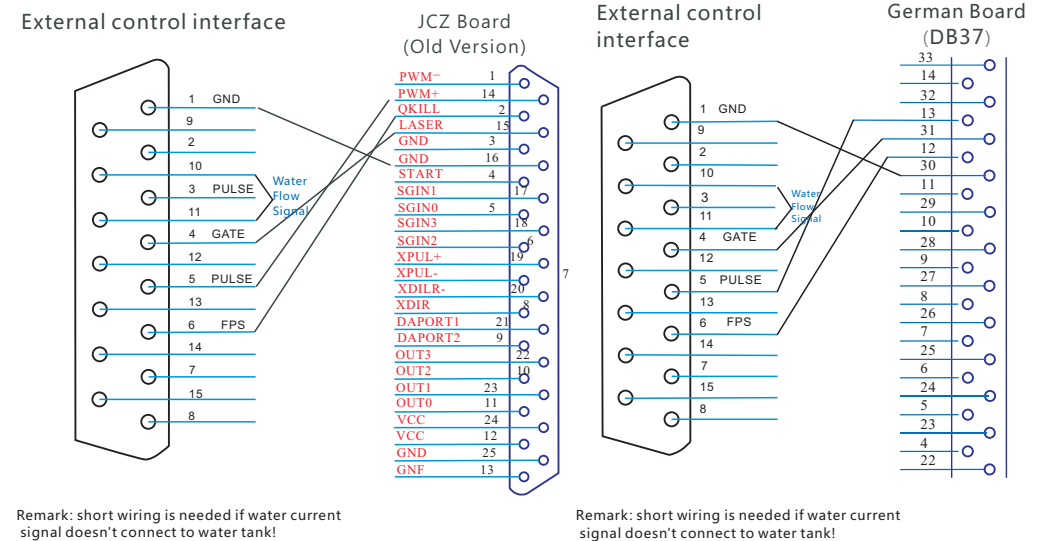


3.4、 Board Connection

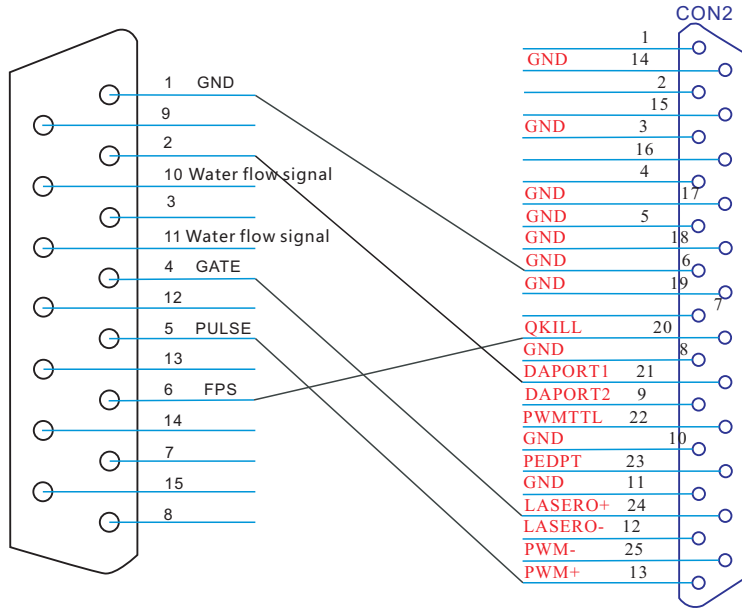
3.4.1 JCZ Board Connection Drawing



3.4.2 German Board Connection Drawing

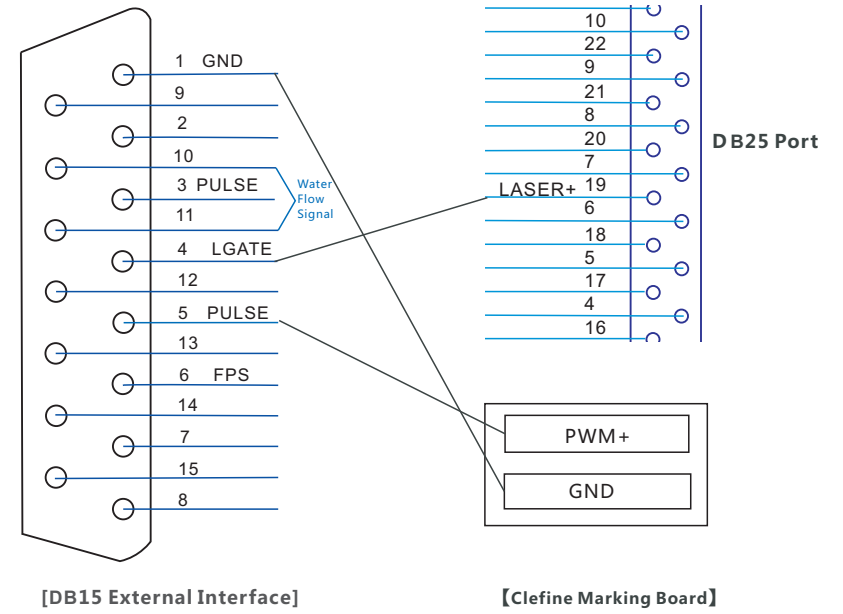


3.4.3, JCZ Board Connection Drawing

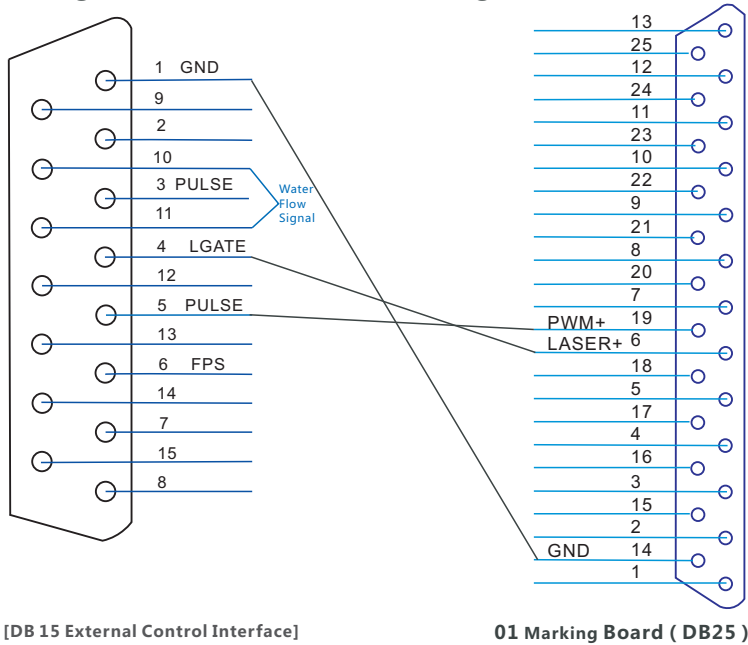


Remark: short wiring is needed if water current signal doesn't connect to water tank!

3.4.5, Clefine Marking Board Connection Drawing



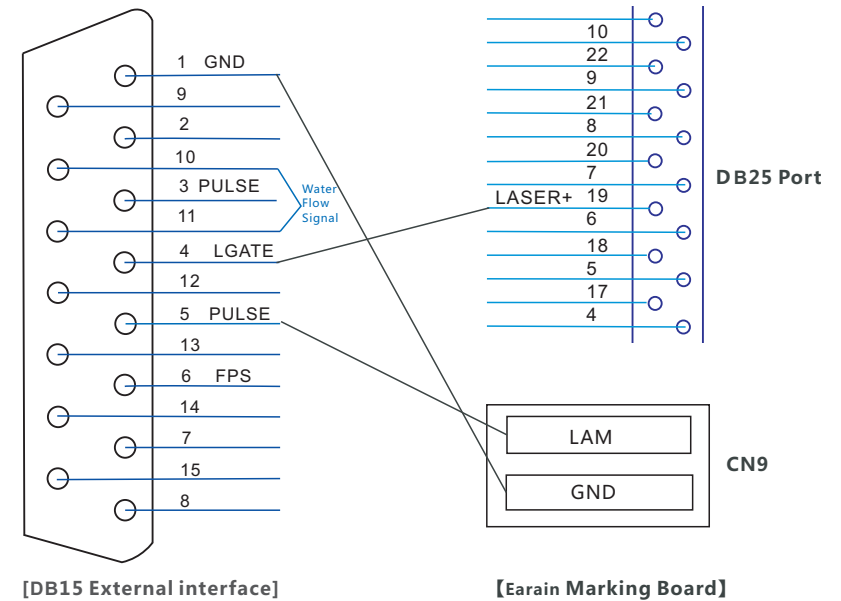
3.4.4, 01 Marking Board Connection Drawing



[DB 15 External Control Interface]

01 Marking Board (DB25)

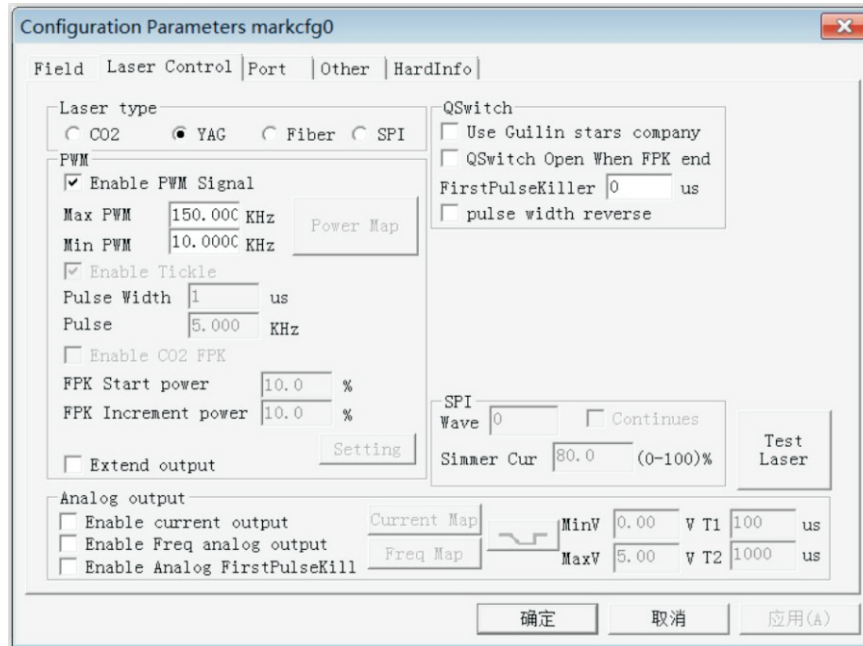
3.4.6, Earain Marking Board Connection Drawing



[DB15 External interface]

[Earain Marking Board]

4. Software display



JCZ Marking Board

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