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Please read the instruction carefully before touching the devices

RGB 30W Fiber Coupled Laser Operation Manual



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30W White Laser Specifications

Model: RGB30W-B1

The main parameters:

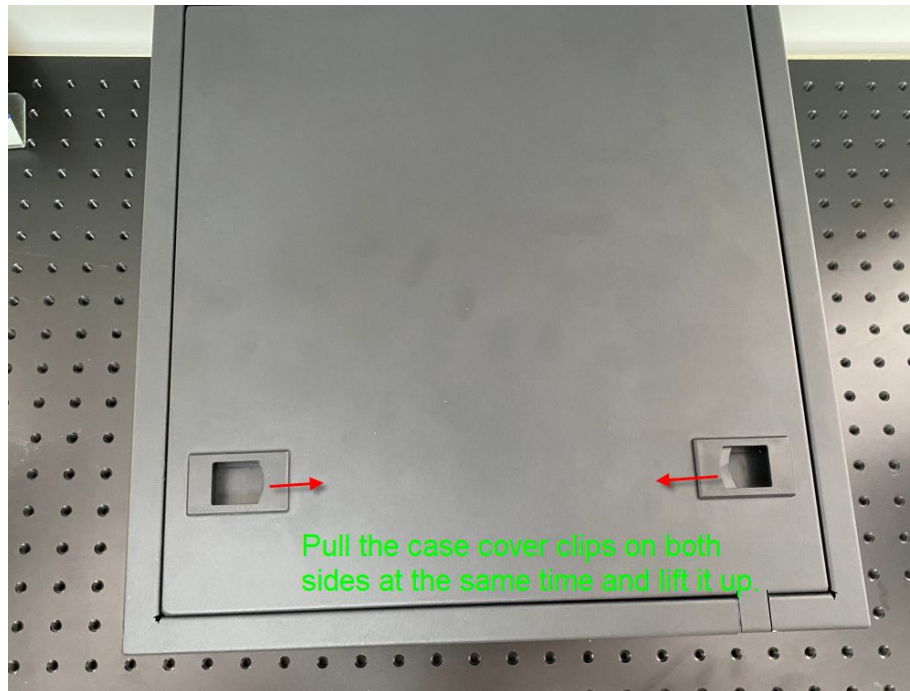
Item	Min. Value	Type Value	Max. Value	Unit
Optical parameters				
Output Power	R:8.5, G:11.0, B:10.5			W
Central wavelength	R:637, G:525, B:455			nm
Electrical parameters				
Input voltage	-	220	-	V
Starting current	-	1.1	-	A
Working current	-	1.0	-	A
Fiber Parameters				
Fiber core diameter	-	200	-	μ m
Numerical aperture	-	0.22	-	-
Fiber length	3			m
Fiber Optic Connectors	Both ends SMA 905			-
Control parameters				
Manual knob	-			-
Input signal	PWM			-
Modulation frequency	1~20K			Hz
Cooling parameters				
Refrigeration method	Air Cooling & Water Cooling			-
Cooling capacity requirement	60			W
Other parameters				
Operating temperature	15	-	35	℃
Relative humidity	-	-	75	%
Storage temperature	-20	-	80	℃
Relative storage humidity	-	-	90	%
Size	367*332*186			mm
Weight	-	-	4	kg

Operating Guides

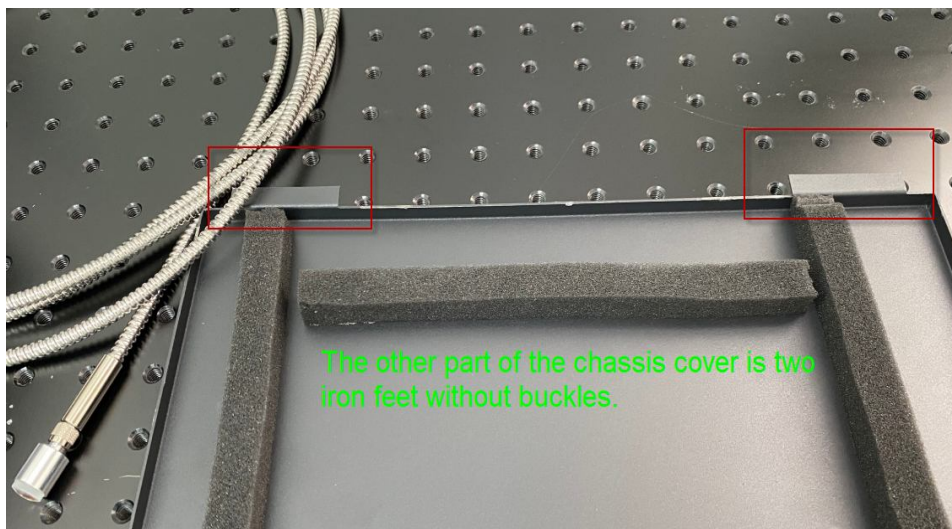
1. First time use

When using the laser for the first time, you need to open the chassis cover, add coolant, install the optical fiber, and then close the chassis cover.

1.1 Open the chassis cover.



Pull the case cover clips on both sides at the same time and lift it up.

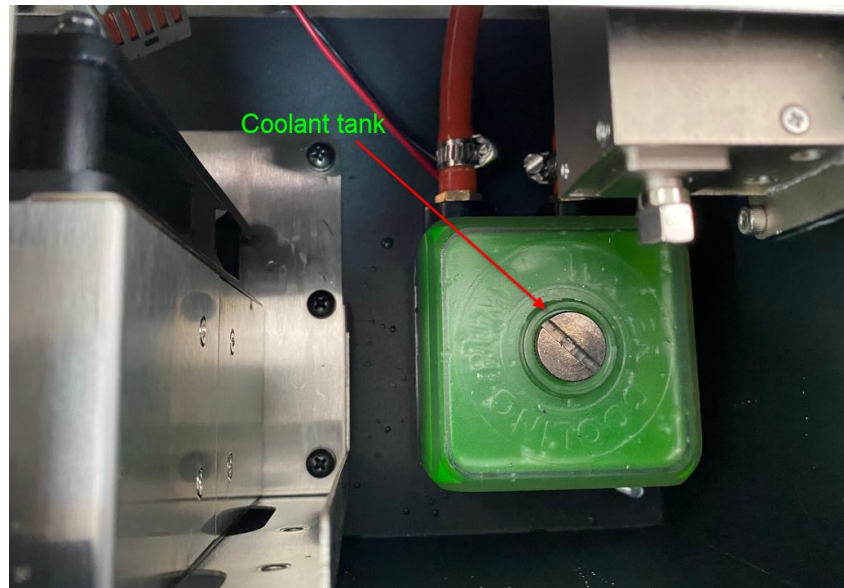


The other part of the chassis cover is two iron feet without buckles.

1.2 Add coolant

- ◆ Packages with liquids are prohibited from air transport and require strict inspection before transportation.

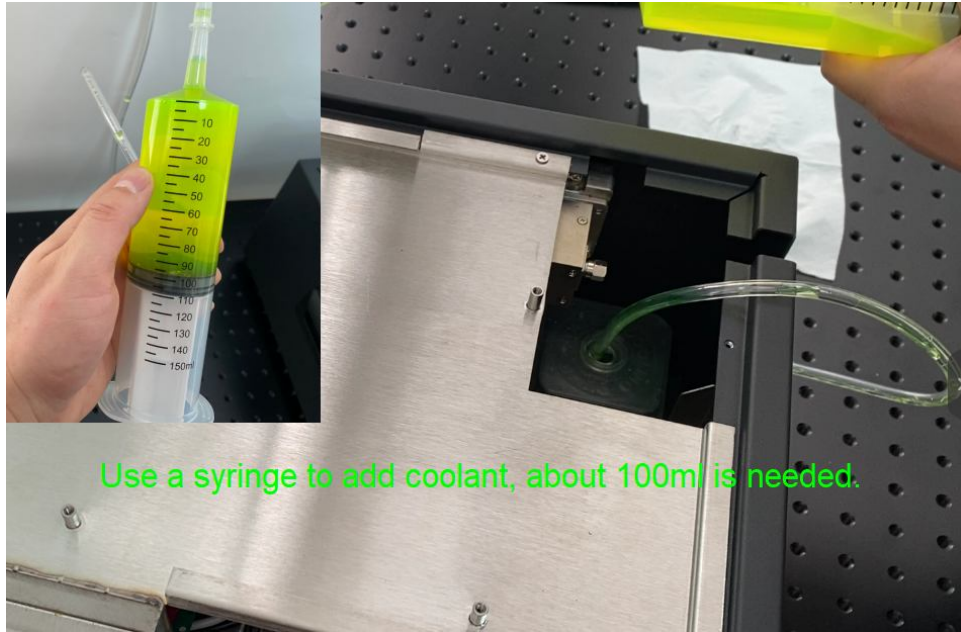
- ◆ We drain the coolant inside the chassis before delivery. Customers need to add coolant when using it for the first time.
- ◆ You can use the coolant commonly used in cars.



Coolant tank.



The cover can be opened with a screwdriver



Use a syringe to add coolant, about 100ml is needed.

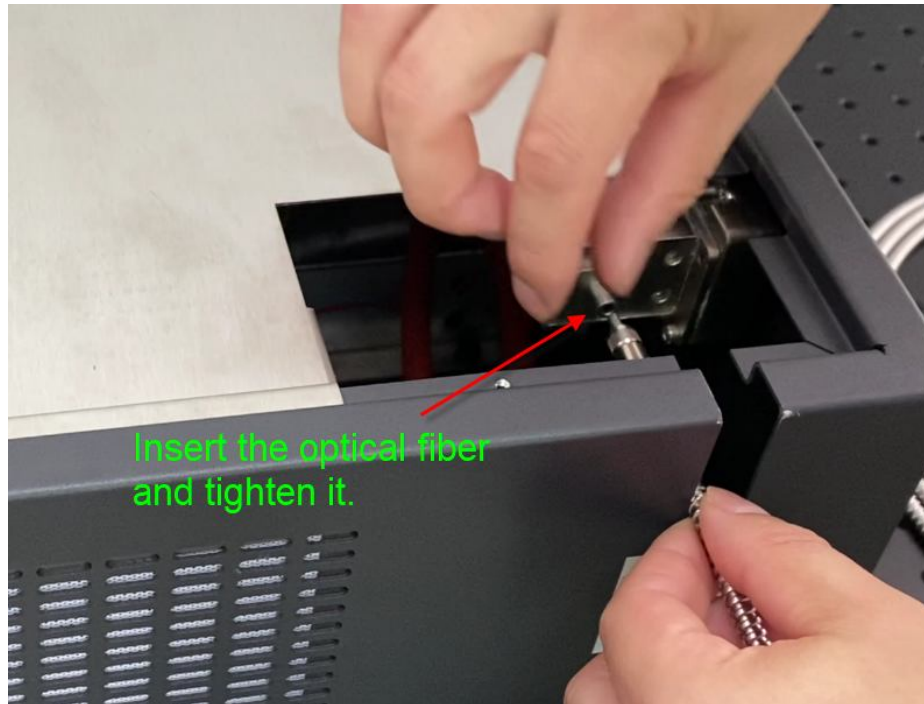
1.3 Installing Fiber Optics

Optical fiber is pluggable.



The fiber is pluggable.

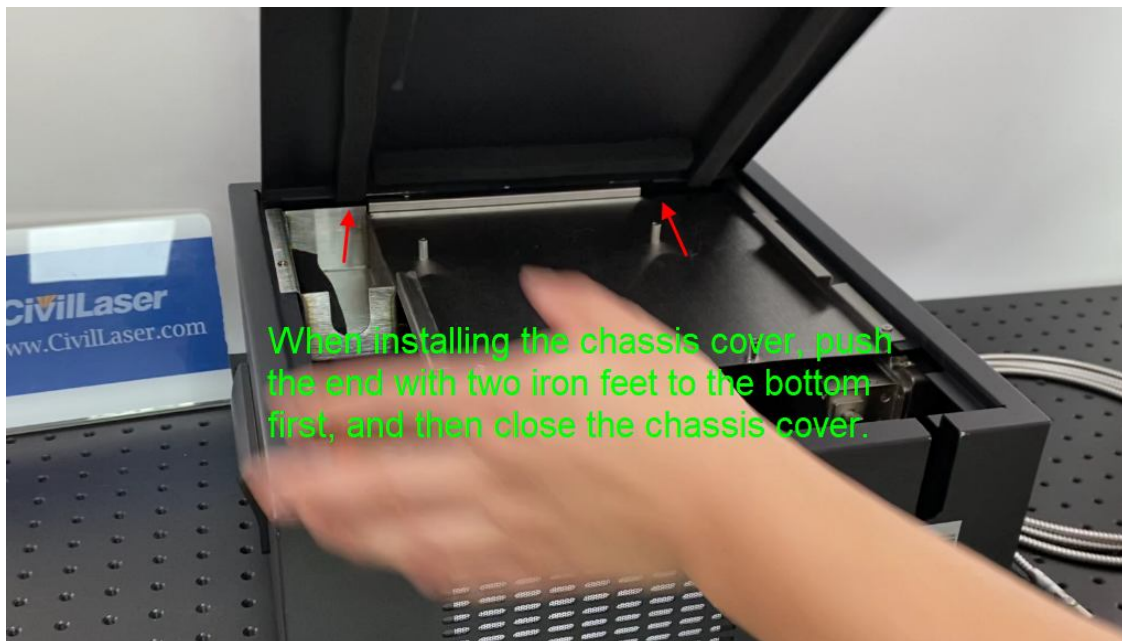
This end of the SMA905 interface is connected to the laser



Insert the optical fiber and tighten it.

Insert the optical fiber and tighten it.

1.4 Close the case cover



When installing the chassis cover, push the end with two iron feet to the bottom first, and then close the chassis cover.

When installing the chassis cover,
push the end with two iron feet to the bottom first,
and then close the chassis cover.

2. Turn on the laser

Connect the AC power supply and turn on the power switch. The laser will start working. RGB 3-way laser can be controlled separately, and the PWM frequency and duty cycle can be set separately.



- ① Connect to AC220V power supply.
- ② Switch.
- ③ Spare switch. (Not available on this model)
- ④ Red-637-8.5W PWM controller, upper frequency adjustment 1~20KHz, lower duty cycle adjustment 0~100%
- ⑤ Blue-455-10.5W PWM controller, upper frequency adjustment 1~20KHz, lower duty cycle adjustment 0~100%
- ⑥ Green-525-11W PWM controller, upper frequency adjustment 1~20KHz, lower duty cycle adjustment 0~100%



Only the red laser duty cycle is set to 100%



Only the blue laser duty cycle is set to 100%



Only the green laser duty cycle is set to 100%



RGB combined laser beam, white laser.