

# **Product Description**

## **SUP26M (V1.0)**



**Wuxi Super Laser Technology Co.Ltd**

# catalogue

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## Updates

Version	Update Content	Hardware Version	Software version	Screen version	Time	Compiler
V1.0	First Edition	V1.2/V1.3	384/311	582/104	23.10.06	Wang hui

## I. Precautions

This product belongs to laser welding equipment, which involves the assembly and use of laser products, and applies to the basic safety standards for all types of hand-held, removable and fixed electrical equipment for indoor and outdoor use with rated AC voltage of 110V~220V.

In order to ensure safe production and normal operation of the equipment, it is recommended that the user post the following safety signs on the entire equipment, informing all the use, maintenance and personnel near the equipment to pay attention to the following safety matters.

### 1.1 Welding safety

This product belongs to the laser welding equipment, and should comply with the safety protection standards of welding equipment.

- ① A special fire area should be designated.
- ② Flammable and explosive materials should be prohibited around the equipment to avoid safety hazards.
- ③ Operators should pay attention to avoid high temperature injury caused by welding.

Logo	Name
	Fire Resistant Areas
	Safety
	Beware of hot surfaces
	No chemical fibre clothing
	Do not place flammable materials

## 1.2 Laser Safety

① The laser with which this product is equipped emits laser radiation with a wavelength of 1080nm or near 1080nm when it is in operation, which is invisible light, and the classification of lasers is based on the manufacturer of the lasers.

② High-power lasers should not be treated as ordinary light sources, and should be avoided to direct the laser welding head light outlet to the staff or flammable and explosive substances.

③ Direct or indirect exposure to high power light intensity can cause eye or skin damage. Although the beam is not visible, the beam can cause irreversible damage to the retina or cornea. Personnel should wear standardised protective goggles corresponding to the wavelength of the laser when the laser is in operation.

④ High-power lasers electrolyse gases and produce ionising radiation, so personnel should take care of protection.

Label	Name
	<p>Laser radiation Avoid direct or scattered irradiation to eyes and skin. Class 4 laser products</p>
	<p>Laser window Avoid exposure to laser radiation emanating from this window.</p>
	<p>Light-blocking goggles must be worn</p>
	<p>Beware of lasers</p>
	<p>Beware of ionizing radiation</p>

### 1.3 Electrical Safety

①This equipment adopts 220V AC power supply, users should pay attention to the safety of electricity to avoid electric shock.

②In order to ensure the normal operation of the equipment, to avoid static damage and equipment leakage. The equipment should use safety grounding measures, that is, connect the easily conductive part of the product fixed wiring to the protective (grounding) conductor, so that the easily accessible conductive part of the basic insulation failure, but also will not become a charged part. Additional safety measures (e.g., double insulation or reinforced insulation) are possible depending on the situation.

③The control box of this product does not contain accessories that require user operation. Any installation, maintenance, or disassembly of this product should be carried out with the gate open and the power disconnected.

Label	Name
	Beware of electric shock
	Must be grounded
	Must be unplugged
	Prohibit closing the circuit breaker

## II. Product Overview

This manual provides a comprehensive overview of the SUP26AM series dual-pendulum welding head product, covering its fundamental functions, installation and configuration, operational procedures, and maintenance requirements.

### 2.1 Gun Body Specifications

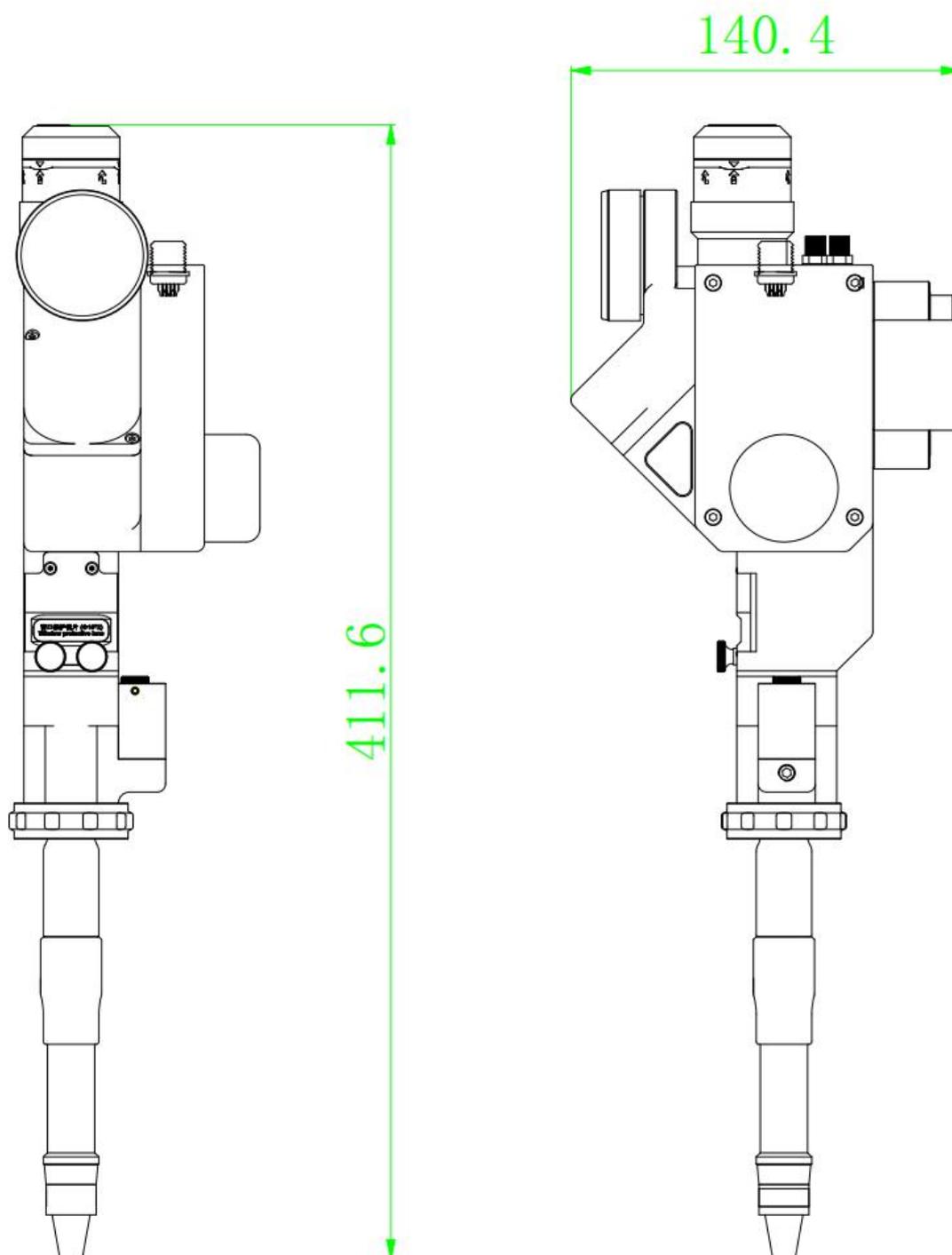


Figure 2.1 Gun Body Dimensions Drawing

## 2.2 Product Functions

- Basic Function

- ①QBH locking structure;
- ②Water-cooling structure;
- ③Support up to 3000W power welding;
- ④6 kinds of process patterns are available.

- Advanced Functions

- ①Open communication protocol, programmable to achieve the adjustment of process parameters in uninterrupted welding;
- ②Support multiple modes of wire breakage status monitoring;
- ③Support IO port to call welding process quickly.

## 2.3 Product operating environment and basic parameters

Table 2-1 shows the operating environment requirements and main parameters of the dual-pendulum welding head:

Table 2.1 Operating environment requirements and basic parameters

Supply voltage (V)	220V±10% AC 50/60Hz
Placement environment	No vibration and shock
Operating ambient temperature (°C)	- 10~50
Working environment humidity (%)	≤70
Cooling method	Water cooling
Applicable wavelength	1080nm(±10nm)
Applicable power	≤3000W
Collimator	D16T5 F60
Focusing lens	D20T4.5F250
Protective lens	D18T2
Recommended air flow	10~15L/min (20°C 0.15MPa)
Focus vertical adjustment range	±10mm
Weight	1.5kg

### III. Installation and Wiring

#### 3.1 Contents of the box

The product delivery list is as per Table 3.1. Should the physical items differ from the schematic diagram, please refer to the specific order.

Table 3.1 Contents of the Box

SUP26AM Packing List				
No.	Material Number	Name	Specifications	Quantity
1	A02010016	Self-made anti-collision swing welding head	SUP26AM	1
2	A05010008	Fibre Optic Pendulum Welding System	SUP-ALWS-B	1
3	K01071304	Seven-core aviation connector system cable	25AM-10M	1
4	C04010006	Display screen	SUP-DW128 HJT	1
5	C03010005	Switching power supply	LM90-12A15(JSY)	1
6	C03020002	Switching power supply	LM100-20B24(JSY)	1
7	K04020001	Display cable (vertical side-exit)	1M	1
8	D01020009	Protective lens	D18T2	5
9	B06020004	copper spout	D	2
9	F01020031	Screw Hexagon socket	M5*10	4
10	CP04030023	Pull-up resistor	10K	1



Figure 3.1 Product Unboxing 1



Figure 3.2 Product Unboxing 2

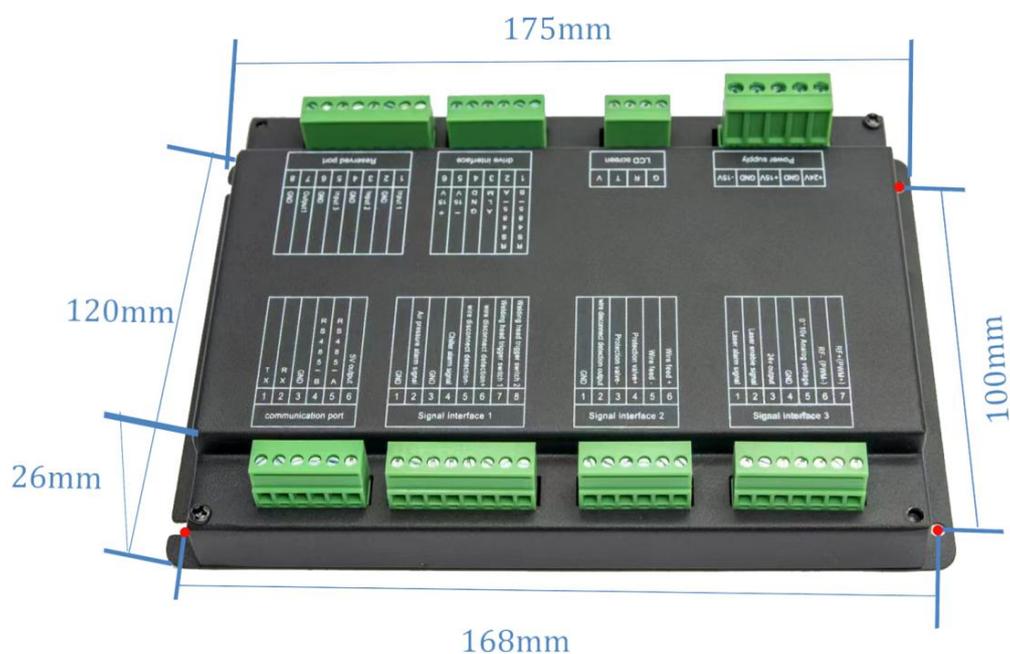


Figure 3.3 Control box dimensions

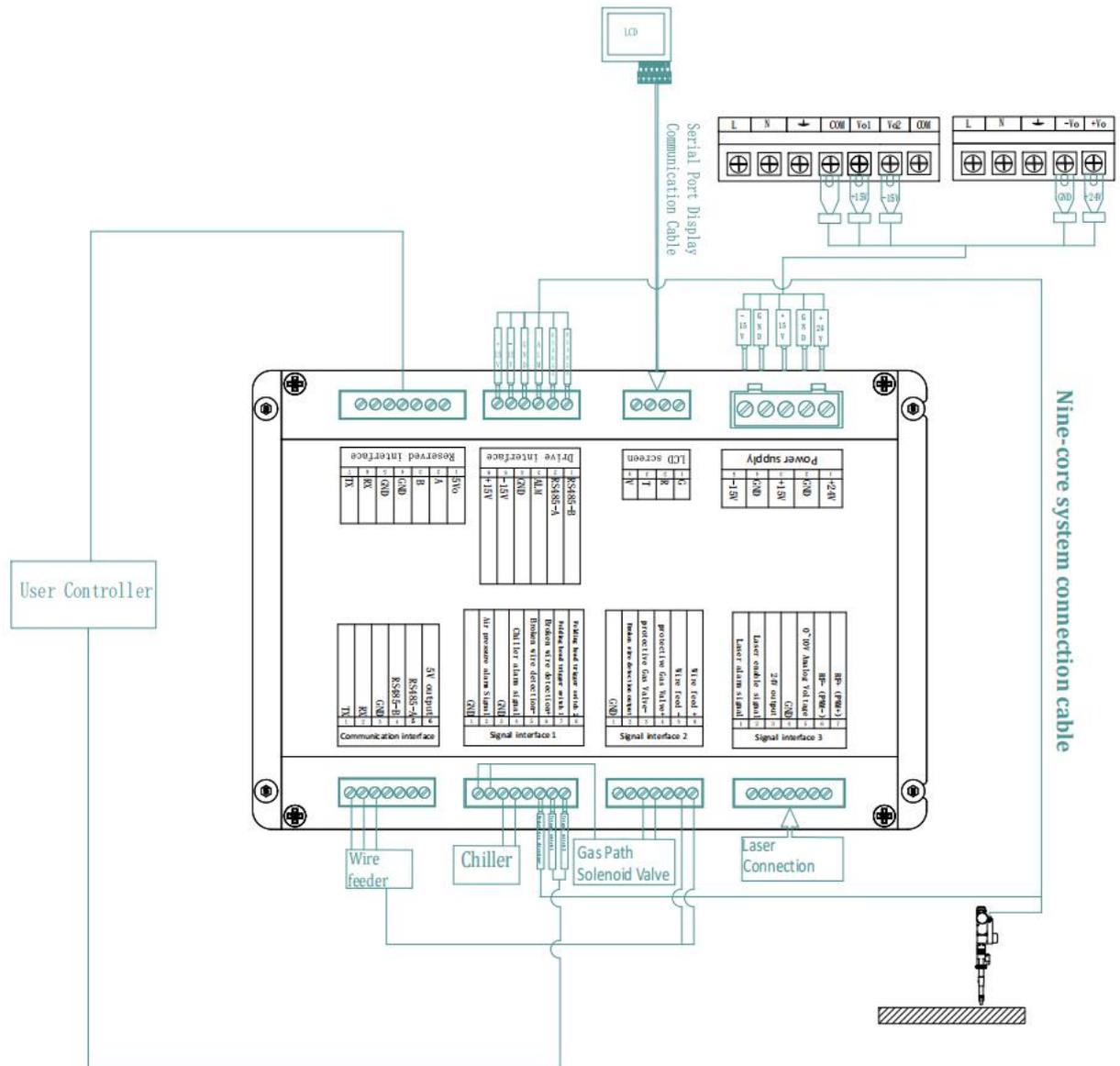


Figure 3.4 Wiring diagram

①[Broken wire detection-] and [Broken wire detection+] should be connected to the lower end of the gun head and the work piece independently respectively. The wire is considered to be unbroken when both ends are connected.

②[Collision Detection]: The welding gun incorporates an internal [collision detection signal wire]. When this wire is conductive, it indicates the gun has collided with an obstacle. A [sensor] is housed within the gun body. Should the gun body—specifically the [collision displacement connector] and all components below it—impact an obstacle, an alarm signal is triggered. A 24V voltage can be detected at [Output 1] of the [control box - reserved port].

When using a single torch head: The ALM signal at the welding head end is an open-drain output. It normally outputs a low level; an abnormal state is open-circuit (high-impedance

state). A pull-up resistor must be connected at the control board end. After connecting the pull-up resistor, the detected logic is: Normal - low level; Abnormal - high level. (Scan the QR code on the pull-up resistor box to view the wiring method)

Note: The GND of the control board detecting the ALM signal must be connected to the gun head GND to ensure the control board can properly detect the ALM signal.

Secure the gun head to the platform. Once the wiring harness is connected, immediately pull the [calibration tube] upon power-up to test whether the [collision alarm] is operational.

③When wiring the upper computer, keep the connection of [Welding Head Output Switch 1] [Welding Head Output Switch 2] and [RS485-A] [RS485-B] [GND] to control the welding of the equipment. The [reserved port] and [broken wire detection output] are extended functions, whether they are connected or not does not affect the welding function of the equipment. Please selective wiring according to the use of demand and the actual interface of the host computer.

④In order to avoid abnormalities in equipment power, the earth wire of the switching power supply must be effectively grounded! The case of the switching power supply must be connected to earth!

⑤The icons used in Figure 3.2 only refer to a certain type of equipment and do not specifically refer to the corresponding products.

### 3.1.1 Control Box - Power Supply

The power supply side uses the 5P connector (supplied with the unit) and uses the supplied switching power supply and power supply.

The switching power supply must be grounded!

Table 3.2 Power Interface Function Specifications

Power Supply		
No.	Signal Definition	Function
1	+24V	24V input, connect to the positive output terminal of the 24V switching power supply, marked [+VO].
2	GND	Connect to the negative output of the 24V switching power supply, marked [-VO].
3	+15V	+15V input, connected to the 15V switching power supply output, marked [VO1].
4	GND	Connect to the negative output of the 15V switching power supply, marked [CMO].
5	-15V	-15V input, connected to the output of a 15V switching power supply, marked [VO2].

**Note:** Ensure effective earthing. 1. Verify continuity of the earth conductor with no breaks or discontinuities. 2. The earth conductor itself must be stable and free from voltage (i.e., both

AC and DC voltages between live, neutral and PE conductors must be less than 10V, ideally maintained at 0V).

### 3.1.2 Control box - LCD screen

The LCD screen wiring is supplied with the unit; simply plug it into the corresponding port. Table 3.3 Functional description of signal interface 1

【LCD Screen】 Interface		
No.	Signal Definition	Function
1	G	Two-ended terminals [4P-1] — [6P-G], 24V power supply load cable shielding layer.
2	R	Two-ended terminals [4P-2] — [6P-R], 232 signal.
3	T	Two-ended terminals [4P-3] — [6P-T], 232 signal.
4	V	Two-ended terminals [4P-4] — [6P-V], 24V power supply positive.

Note: A full-length screen cable is included at random, ready for plug-and-play use.

### 3.1.3 Control Box - Signal Interface 1

Table 3.4 Functional description of signal interface 1

Signal interface 1		
No.	Signal Definition	Function
1	GND	Input port for air pressure alarm signal, please set the "air pressure alarm level" in the setting page of the display to the same level as the actual valve alarm level.
2	Air pressure alarm signal	
3	GND	Water cooler alarm signal input port, please set the "Water cooler alarm level" in the setting page of the display to the same level as the actual water cooler alarm level.
4	Chiller alarm signal	
5	Broken wire detection -	One end of the wire is connected to the [Control Box Terminal] and the other end is on the [Table]. When both ends are connected, it means [no wire break]. When both ends do not conduct, it means [broken wire].
6	Broken wire detection +	One end of the wire is connected to [Control Box Terminal] and the other end is on [Work Table]. When both ends are connected, it means [No wire break]. When both ends do not conduct, it means [Broken wire].
7	Welding head trigger switch 1	External switch, normally disconnected. 7 and 8 pins conductive means the light switch is on.
8	Weld head trigger switch 2	

Note: The subsequent output ports will have normal output signals only when there are no alarms and the switch signal is displayed in green.

### 3.1.4 Control Box - Signal Interface 2

Table 3.5 Functional description of signal interface 2

Signal interface 2		
No.	Signal definition	Function
1	GND	When both pins of "Wire break detection±" are disconnected, it is [Wire break], and when it is on, it is [No wire break]. When [break wire], both ends are 0V, and when [not break wire], both ends are 24V, <a href="#">see "Break Wire Detection Time" for details.</a>
2	Broken wire detection output	
3	Protective Gas valve -	Valve open: Protective air valve + output 24V; Valve closed: no output from protective air valve + .
4	Protective Gas valve +	
5	Wire feed -	Wire feed switch signal of the wire feeder, connect to the signal line corresponding to the wire label. <a href="#">Be careful to distinguish between positive and negative.</a>
6	Wire feed +	

### 3.1.5 Control box - signal interface 3

Table 3.6 Functional description of signal interface 3

Signal interface 3		
No.	Signal definition	Functional description
1	Laser alarm signal	Set the "Laser Alarm Level" on the setting page of the display to match the alarm level of the actual laser being used.
2	Laser alarm signal	Enable + , connect the laser's enable + .
3	24V Output	24V output, normally output 24V voltage after power on.
4	GND	is the common ground (reference ground of pin 1/2/3/5)
5	0~10V Analog voltage	Analogue output (default is 0 to 10V analogue voltage).
6	RF - (PWM - )	PWM-modulating signal
7	RF + (PWM + )	PWM+ modulating signal

### 3.1.6 Control box - Communication interface

Table 3.7 Communication interface function description

Communication interface		
No.	Signal Definition	Function
1	TX	232 communication interface, wire feeder line, line marking [RXD].
2	RX	232 communication interface, wire feeder cable, wire label [TXD]
3	GND	Signal reference ground
4	RS485-B	485 communication interface, connected to the upper computer 485B
5	RS485-A	485 communication interface, connected to the upper computer 485A
6	5V output	Reserved port, normal output 5V

### 3.1.7 Control box-Driver interface

Table 3.8 Functional description of the Driver interface

Driver interface		
No.	Signal Definition	Function Description
1	RS485-B	Connect to the 7-core aerial plug system connection cable, cable label [RS485-B].
2	RS485-A	Connect to the 7-pole plug-in system connection cable, cable label [RS485-A].
3	ALM	Connect to the 7-pole plug-in system connection cable, cable label [ALM].
4	GND	Connect to the 7-pole plug-in system connection cable , cable label [GND].
5	- 15V	Connect to the 7-pole plug-in system connection cable, cable label [ - 15V].
6	+ 15V	Connect to the 7-pole plug-in system connection cable, cable label [ + 15V].

### 3.1.8 Control box - Reserved interface

Table 3.9 Functional description of Reserved interface

Reserved interface		
No.	Signal definition	Function Description
1	Input 1	Corresponds to IO-1
2	GND	
3	Input 2	Corresponds to IO-2
4	GND	
5	Input 3	Corresponds to IO-3
6	GND	
7	Output 1	Alarm output.
8	GND	When the system triggers any one of the alarm signals such as "air pressure", "temperature", "chiller", etc., which will force the light to be cut off, 24V will be output.

### 3.2 Gun body interface

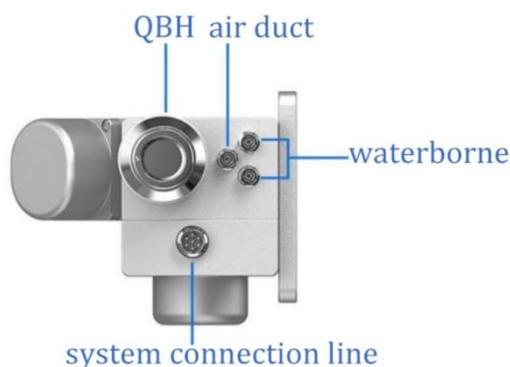


Figure 3.5 Gun body interface diagram



Figure 3.6 QBH connector

#### 3.2.1 Fibre optic head connection

The product [QBH] interface is suitable for most industrial lasers, including IPG, Raycus Laser, Maxphotonics, Feibo Laser, Reci Laser, JPT Laser, BWT Beijing Ltd. and so on. Attention should be paid when installing:

- ① Keep the inside and outside of the device clean;
- ② Place the fibre head horizontally with [QBH] during installation;
- ③ Take the scale of [Locked] and [Unlocked] in Figure 3-4 as the standard, rotate to loosen the QBH first, insert the optical fibre head and then lock it. After locking the fibre optic head is placed in the [QBH] without shaking.

### 3.2.2 Water and air connection

There are  $\phi 6\text{mm}$  quick couplings in the [water] and [gas] ports, which can be inserted directly. The cooling system comprises the water circuit section for the welding head and the water circuit section for the fibre optic head. These two sections are connected in series before being fed into the chiller's ambient temperature water circuit. as shown in Figure 37:

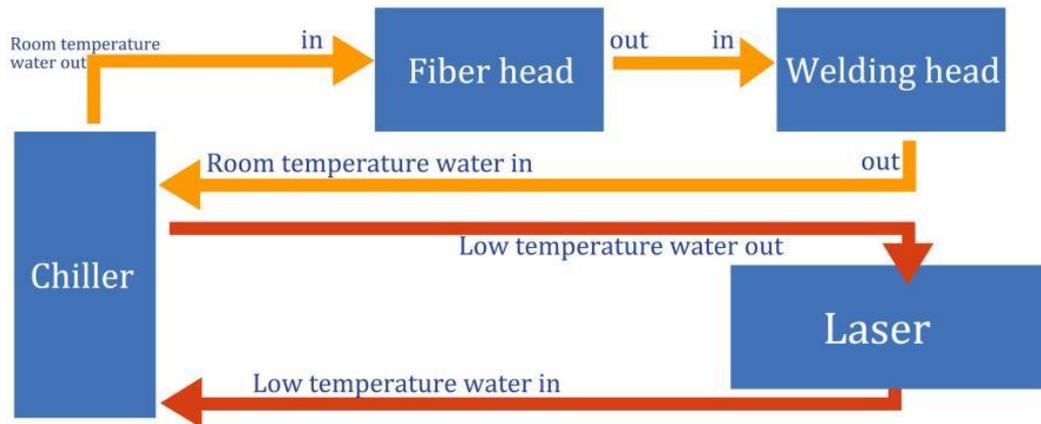


Figure 3.7 Schematic diagram of water circuit of welding head and optical fibre head

### 3.2.3 Control box connection

Double pendulum welding head and the control box through the randomly supplied [7-core aerial plug system connection cable] connection. Control box wiring definition see above [driver interface].

## IV.Product Operation Interface

This chapter will introduce the 7-inch screen interface connected to the main control board.

### 4.1 Home Page

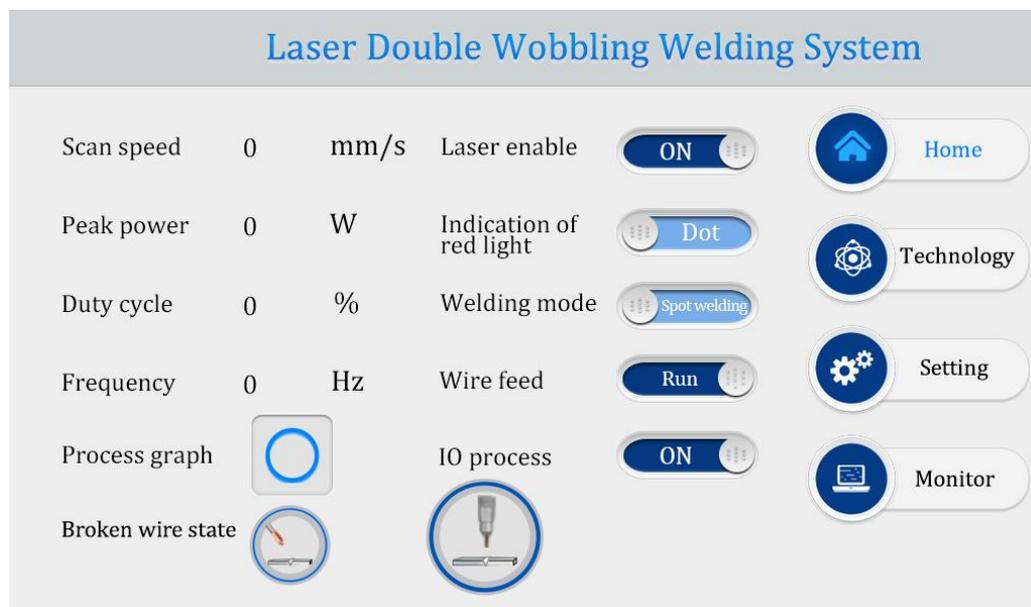


Figure 4.1 Interface-Home

Switches used to display the current process, alarm information and adjust the main output signals.

①[Laser enable-On/Off]: Controls and indicates whether or not to output [laser out light enable signal].

②[Indication of red light-Dot / line]: Control, indicating whether the vibration mirror motor swing, adjust the red light for [Dot] or [line], does not affect the red light with or without.

③[Welding Mode-Spot Welding/Continuity]: Usually use [Continuity], [Spot Welding]is the intermittent light output according to the parameters of the setup page, used for fish scale pattern welding.

④[Wire Feeder-Run/Stop]: After communicating with [Wire Feeder]through [Communication interface], it is used to switch the state of wire feeder, and it can be cut to [Stop]without additional debugging of the wire feeder when there is no need for wire feeder. If it is not connected, it has no effect.

⑤[Process Graph]: corresponds to the current process scanning graph.

## 4.2 Process Page

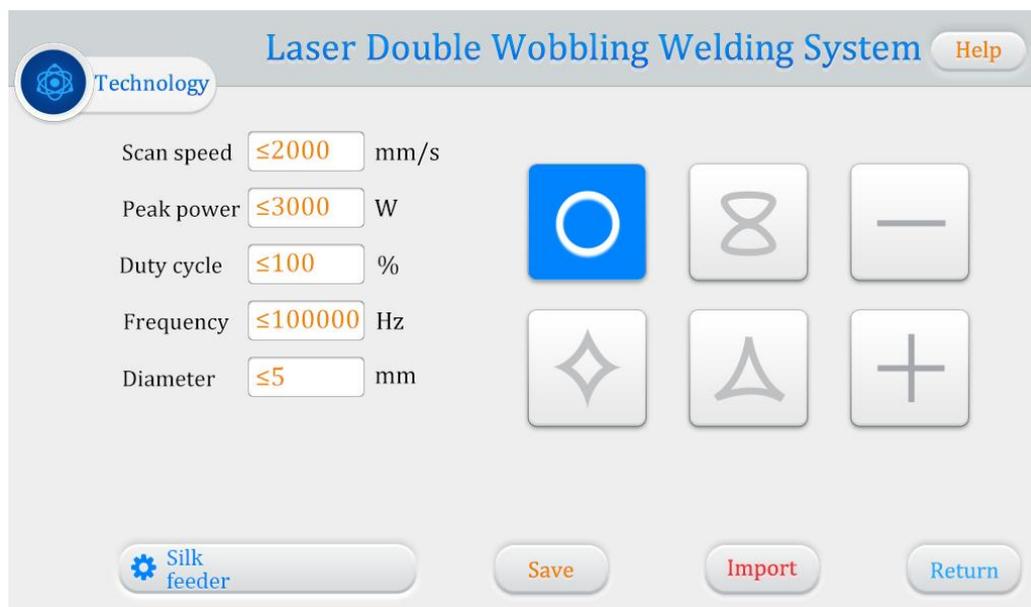


Fig. 4.2 Interface - Technology

It is used to select the process graph and adjust the process parameters. 7-inch screen interface description is as follows:

①[Scan speed]: the line speed of focusing spot movement, affecting the welding quality. Take [circle] [diameter] 3mm as an example, usually set to 200~600. [Welding speed] increase, [scanning speed] correspondingly increase.

②[Peak power]: The maximum power at the time of light output, or processing power, welding power.

③[Duty Cycle, Frequency]: Usually set [Duty Cycle 100%] [Frequency 2000]. According to the characteristics of the laser by adjusting the duty cycle and pulse frequency to change the equivalent processing power, usually do not adjust.

④[Diameter, width, height]: corresponds to the geometry of the spot and controls the spot size. Depending on the size of the weld, it is adjusted.

⑤[Rotation Angle]: Control the spot rotation around the geometric centre. Usually not adjusted.

⑥[Silk Feeder - Connected / Not Connected]: Indicates the communication status between the welding board and the wire feeder board, the main control board is connected to the wire feeder through the [communication port]. When [Connected], click to enter the parameter page of wire feeder. Not connected] has no effect.

⑦[Process Pattern]: Provide 6 kinds of process patterns, click to switch.

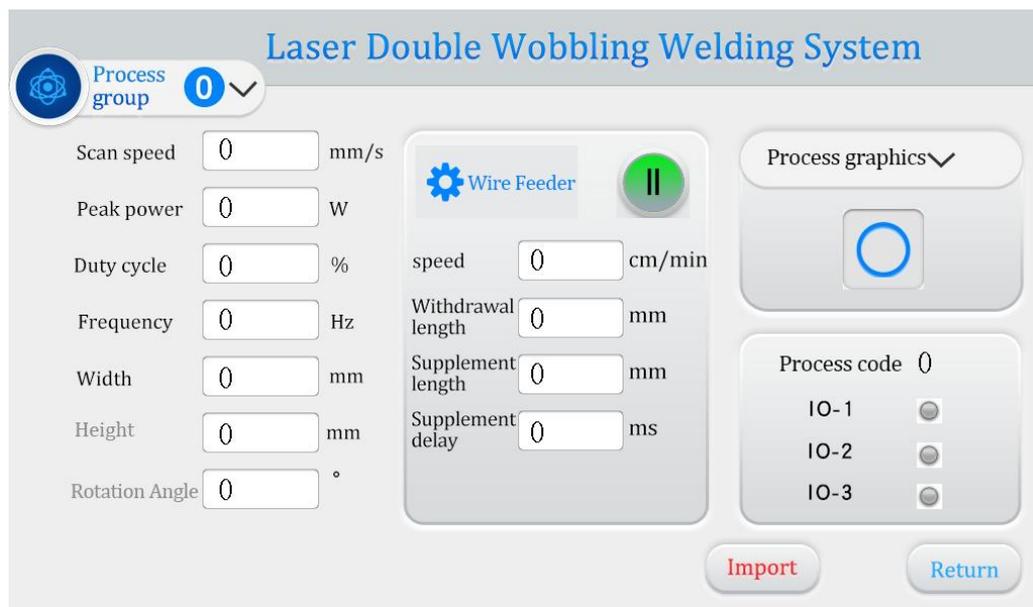


Figure 4.3 Interface - IO process

It is used to adjust the process group and cooperate with the external control to switch the process parameters.

- ①See [4.2 Process Page] for process parameters.
- ②[Wire Feeder]: You can quickly adjust the wire feeder parameters in this page. Set whether to feed wire when welding.
- ③[Process graphics]: Provide 6 kinds of process patterns.
- ④[Process group]: Up to 8 groups of process parameter groups can be saved. When welding, you can switch different process groups through IO combination to achieve power adjustment, width adjustment, wire feeding speed adjustment, etc. (does not support the adjustment of graphics).
- ⑤[Process code]: The correspondence between process code and process group is shown in Table 4.2.

Table 4.2 Correspondence between process code and process group

Process code (0: break; 1: pass)			Process group
IO-1	IO-2	IO-3	
0	0	0	0
1	0	0	1
0	1	0	2
1	1	0	3
0	0	1	4
1	0	1	5
0	1	1	6
1	1	1	7

### 4.3 Setup Page

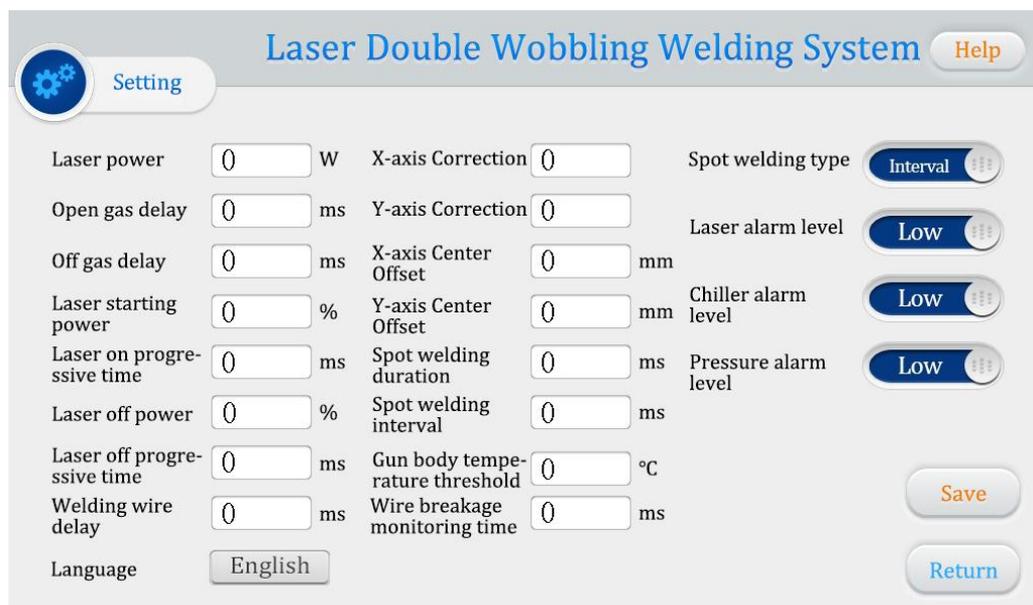
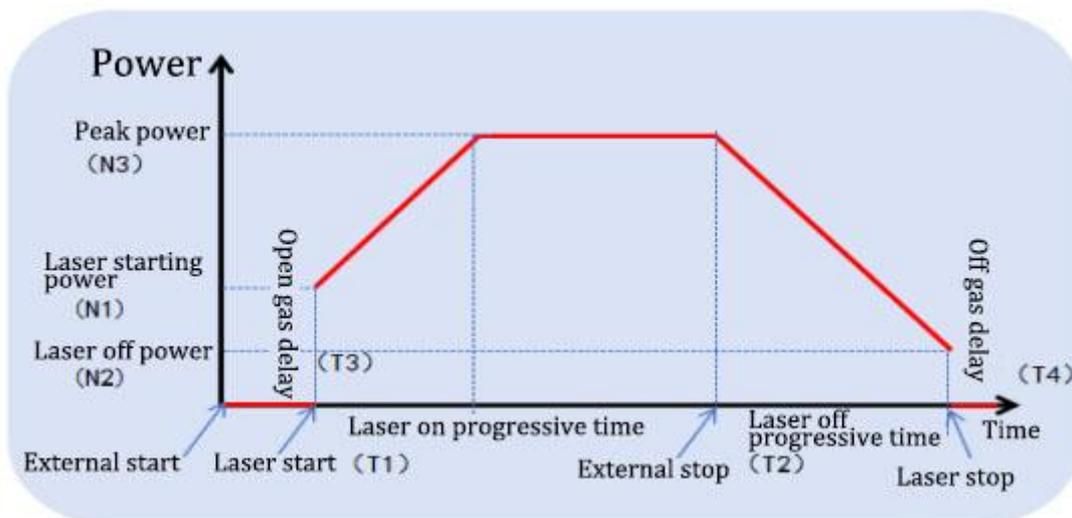


Figure 4.4 Interface - Settings

Used to set factory parameters, including the unit's power and alarm level.

- ①[Laser power]:Subject to the laser in kind.
- ②[Welding wire delay]:Feeding silk in advance. Example: If 1000 is set, after pressing the trigger, send the wire 1S first and then light out.
- ③[X/Y axis Correction]:correction coefficient=target line width/measurement line width, used to adjust the actual spot size, so that it is consistent with the system display.
- ④[X/Y axis Centre Offset]: [ - ] means left shift, [ + ] means right shift. It is used to adjust the light spot to make it centred.
- ⑤[Open gas delay]:Before the light is released, the air is released in advance.
- ⑥[Off gas delay]:After turning off the light, turn off the air after the delay.
- ⑦[Laser starting/Laser off Power][Laser on /Laser off progressive time]:As shown in the figure,[Laser on progressive time T1]indicates the time from [Laser starting N1]to [peak power N3], and [Laser progressive T2]indicates the time from [Peak Power N3]decrease to [Laser off Power N2].

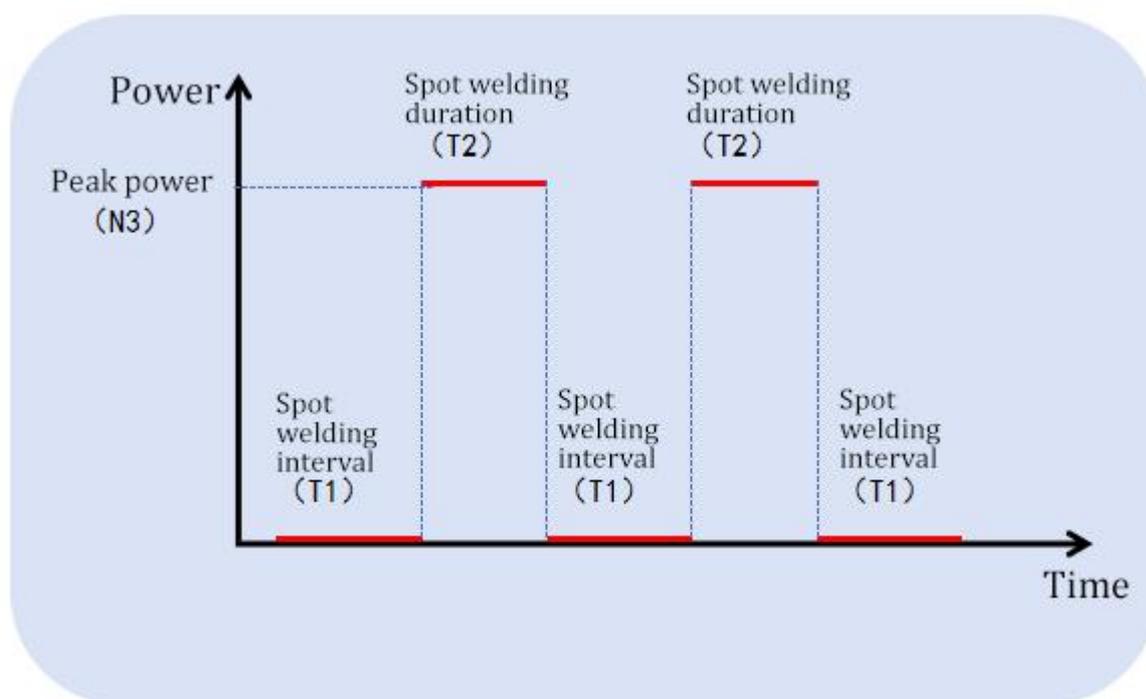


⑧[Temperature threshold]:Maximum 70 °C, the value is set to 0, does not detect the temperature alarm.

⑨[Alarm level - high / low]:set to low level when not in use, according to the external device settings.

⑩[Wire breakage monitoring time]:set to "0", the output port real-time indication of the state of the broken wire, broken wire for 0V, not broken wire for 24V. set to "1000" ms, only in the 1000ms after the stopping of the light out of the state of the broken wire check and output signal. The following table shows the status of the broken wire and the output signal.

⑪[Spot Welding type-Interval/Fish Scale]:[Fish Scale] is applicable to fish scale welding, [Intermittent] is applicable to segmental welding.



⑫[Spot Welding duration] [Spot Welding interval]:As shown in the figure, [T1] does not

come out of the light, [T2] comes out of the light.

### 4.4 Monitoring Page

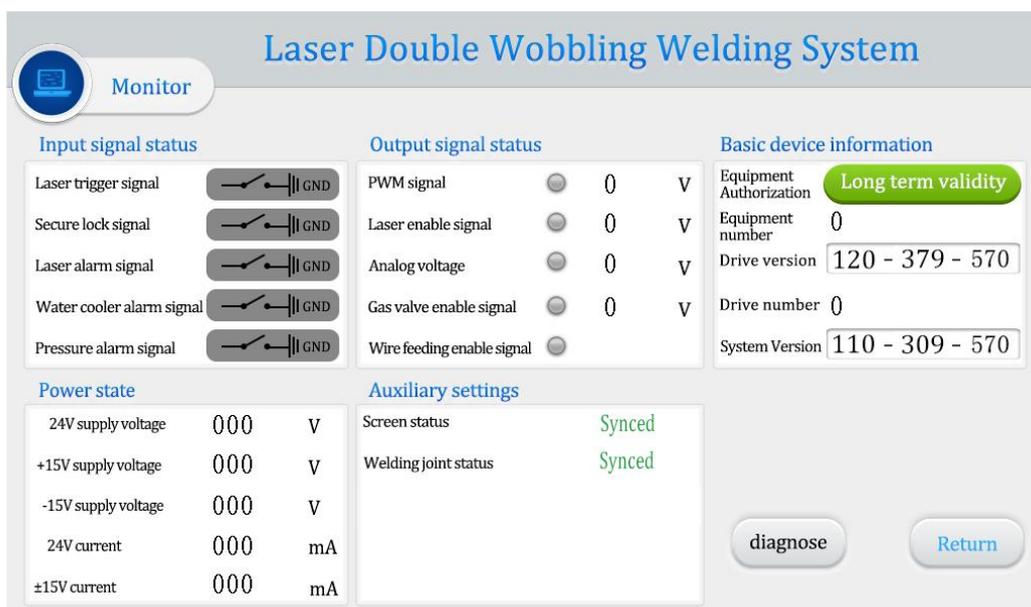


Fig. 4.5 Welding gun interface-Monitoring

Display the monitored real machine information, where [Equipment Authorization] is used for device encryption.

### 4.5 Diagnostics page



Figure 4.6 Welding Gun Interface - Diagnostics

This mode can only do single [Output Signal] output, which is used to judge whether the various output signals of the main control board are normal or not in a safe situation, and this mode can not produce light.

## 4.6 Wire Feed Page

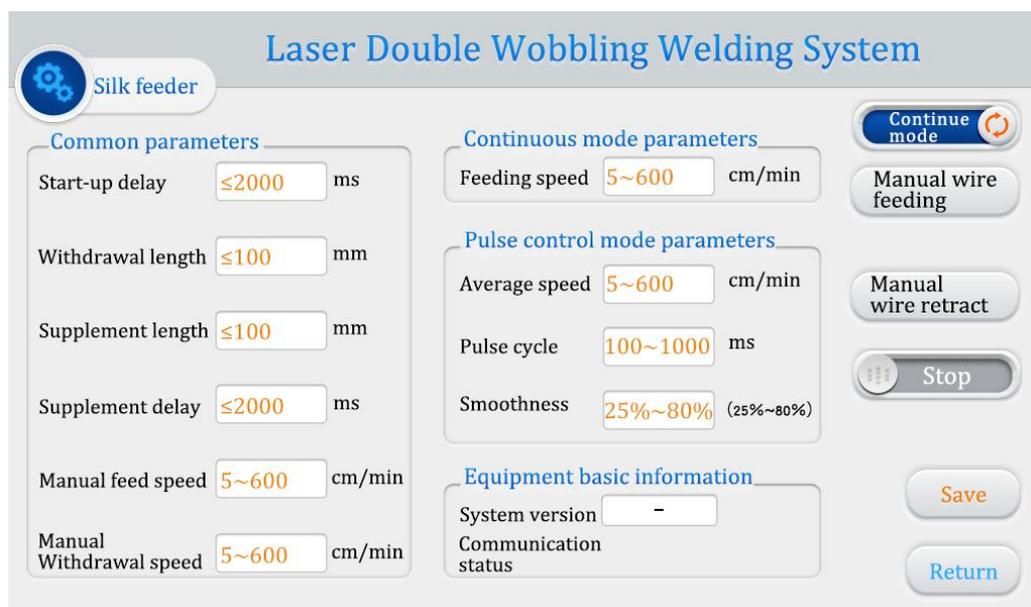


Figure 4.7 Welding Gun Interface - Wire Feeder

When the device communicates with the wire feeder, it can enter [Wire Feeder Interface], which is used to quickly adjust the wire feeding parameters. When there is no communication, this interface cannot be accessed and this function is not effective.

①[Continuous Mode Parameter] is only effective in [Continuous Mode], and [Pulse control mod Parameters] is the same.

②[Common parameters] is effective globally.

## V. SUP26AM body operation interface

This chapter describes how to operate the 1.3 knob screen of the SUP26AM body.

### 5.1 Menu Introduction

The 1.3" screen is a round knob screen. It supports both [Rotate] and [Press] operations, [Rotate] for selecting objects and [Press] for confirming or returning.

Power on the initial [first level interface], [rotate] screen for the selection of the interface, [press] screen for confirmation and enter the [second level interface], modify the interface parameters, first press the screen, from the [first level interface] into the [second level interface].

In the [secondary interface],[rotate] screen is for selecting parameters, and the blue area indicates the selected parameters;[press] screen enters into the [tertiary interface] to modify the value (or status),the value changes from [white] to [red], [rotate] screen modifies the size of the value, [press] screen confirms the modification and returns to the previous level, and the value changes from [red] to [white],which indicates that the parameter modification is successful.

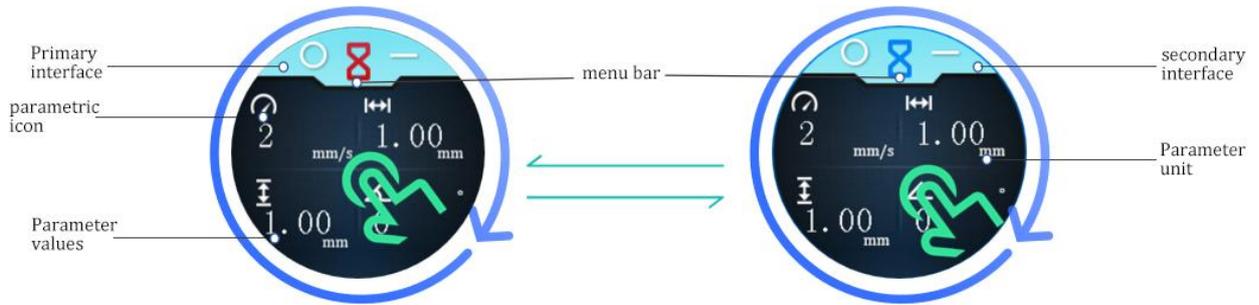


Figure 5.1 Entering the secondary interface

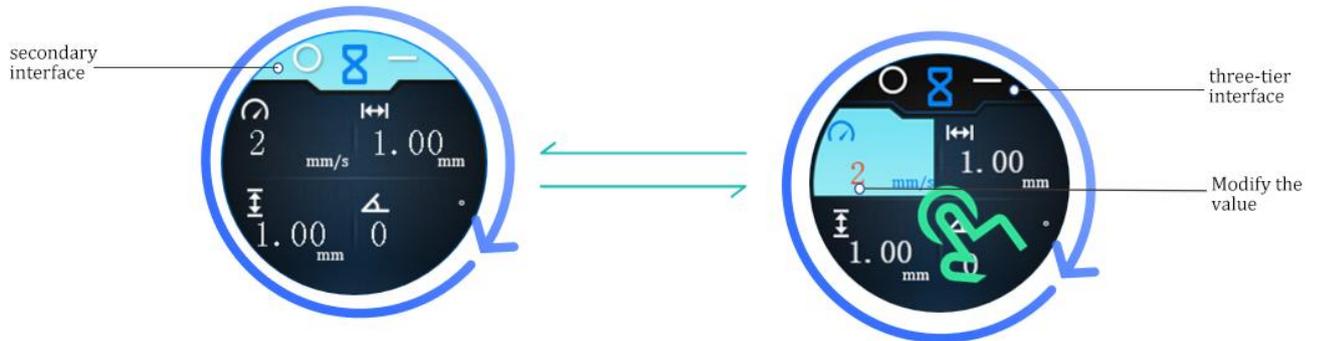


Figure 5.2 to enter the third-level interface

## 5.2 Process Page

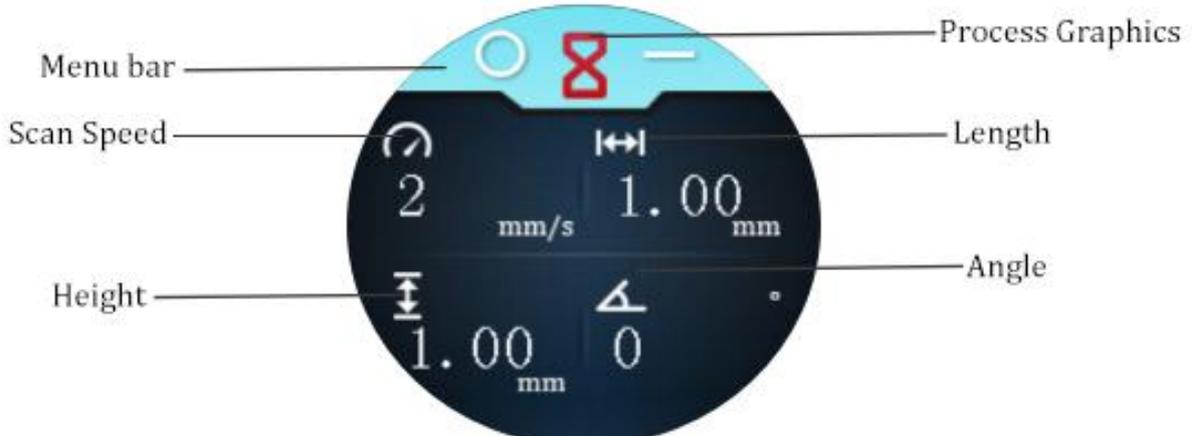


Figure 5.3 Process Page Logo

### 5.3 Setup Page

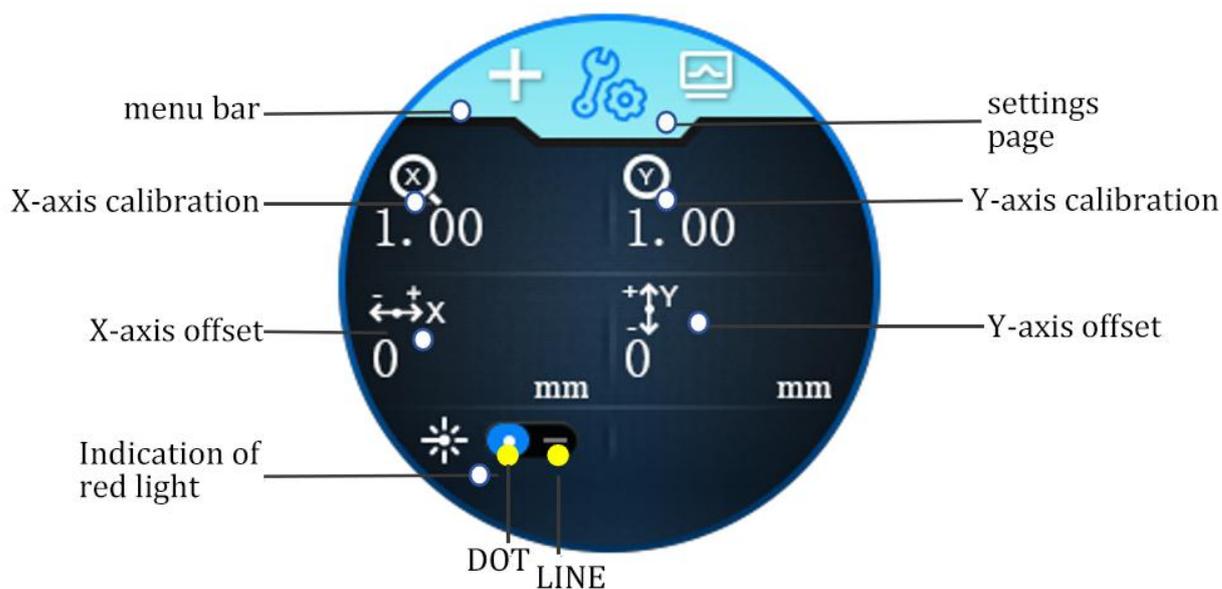


Figure 5.4 Setup Page Logo

### 5.4 Monitoring page

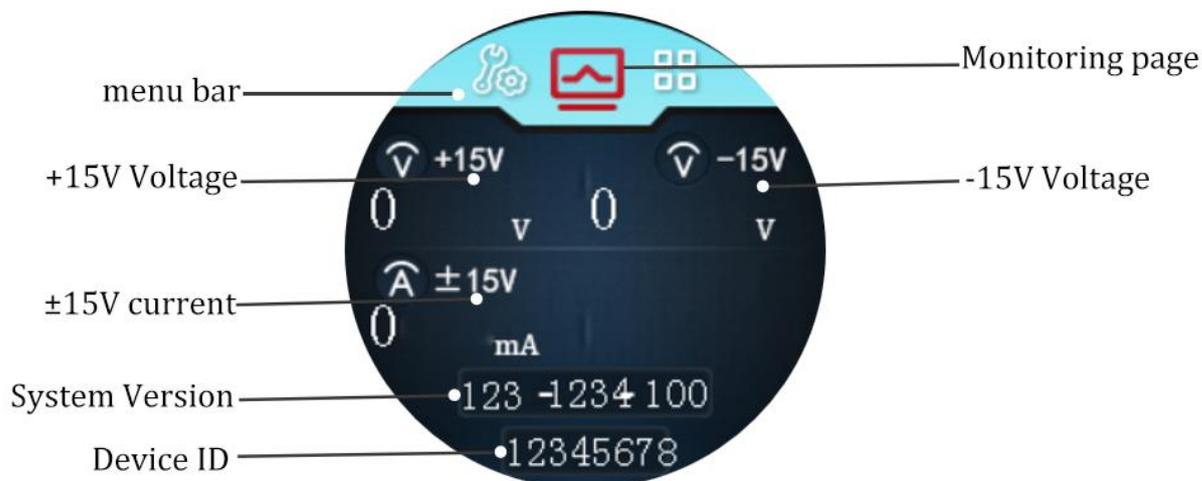


Figure 5.5 Monitoring page logo

## 5.5 Accessibility Page

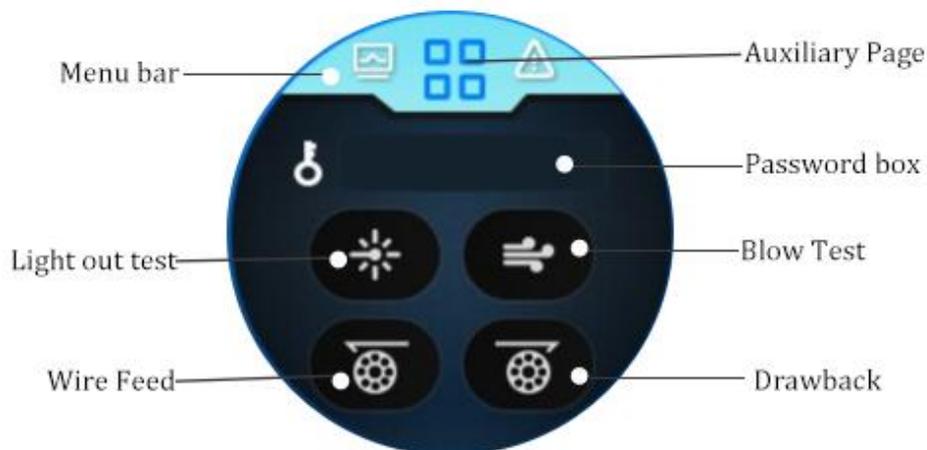


Figure 5.6 Auxiliary page logo

- [Lighting Test]: start to lighten after long press for 3 seconds, release the screen or stop lightening if the lightening time exceeds 10s.
- [Blow Test]: Start blowing after pressing the screen, release the screen to stop blowing.
- [Wire feeding and pumping back]: press the screen to start wire feeding/pumping back, release the screen to stop wire feeding/pumping back.

## 5.6 Hibernation Screen



Figure 5.7 Lock Screen Page - No Light Out Status

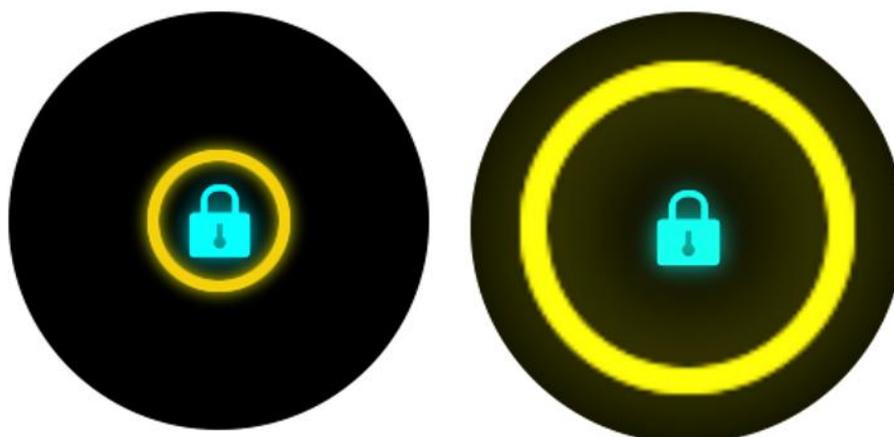


Figure 5.8 Lock Screen Page - Out of Light Status

- [Hibernate]: the screen without operation lasts 180s will enter the lock screen state, [Rotate] is invalid. You need to [Press] to unlock. The yellow dynamic effect corresponds to the light state.

### 5.7 Alarm Page

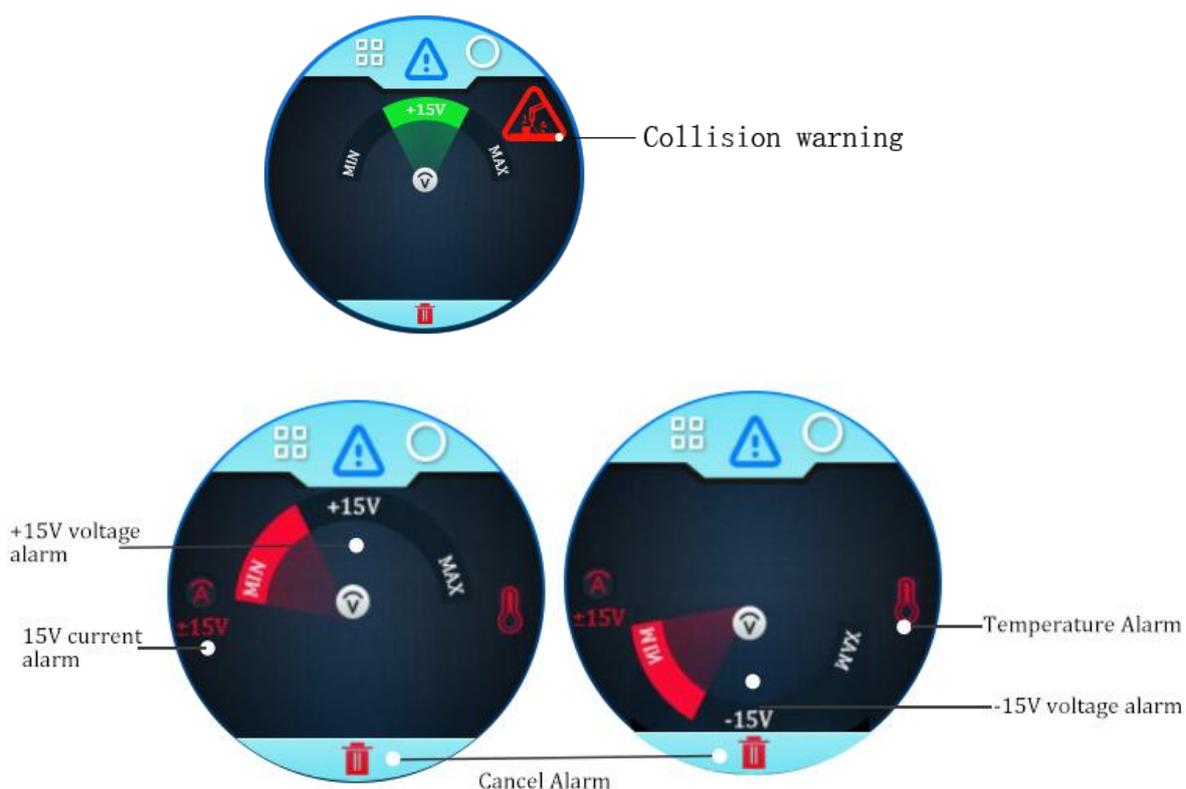


Figure 5.9 Cancel Alarm Tip Page

When the system has an alarm prompt, the system will forcibly switch to the [first level menu] of the alarm prompt, [press] the screen to enter the prompt page to view the alarm information. When the alarm state is eliminated, [press] the screen in the [Cancel Alarm] area to eliminate the screen alarm state.

## VI. Product routine maintenance

1. It is recommended that users give the chiller a month to replace the water, effectively preventing clogging of water pipes inside the gun, the water quality requirements for pure water or distilled water, low-temperature state need to add antifreeze.

2. Lens maintenance and replacement needs to be ensured in a relatively clean field environment. When opening the protective lens, focusing lens compartment cover, pulling out the lens holder and other open operations, should be well protected (use the American paper cover). Replacement methods for the different lenses corresponding to all gun models are available in the We Chat applet → Super Weaver → Lens Installation.



When using, please hold it gently. In a complex production environment, please promptly remove the gray part.

## VII.Product common problems and measures to deal with them

The description of common alarms and the measures to solve the problems are as follows:

Problem item	Phenomenon	Solution
Temperature alarm, prompting various types of temperature is too high	Home page prompts XXX temperature is too high	<p>General lens temperature alarm, usually first check whether the lens is damaged, replace the damaged lens.</p> <p>If the lens is normal, you need to shield this alarm directly in the setup page, set the corresponding lens temperature alarm threshold to 0 in the setup page to save.</p>
Chiller/Laser/Air Pressure Alarm	Pop-up window on home page shows chiller/laser/air pressure alarm.	<p>Alarm Logic of Level: The system will compare the wiring of the corresponding equipment with the level set in the setting page, and the alarm will be raised if the level is different.</p> <p>Usually, the alarm occurs because the alarm level is set incorrectly, and it is enough to change the corresponding alarm level.</p> <p>If the alarm occurs when there is an alarm signal connected and the alarm occurs no matter how to set the alarm, please unplug the alarm signal wire and set it to low level.</p>
Poor soldering effect	The light is strong at the beginning, but slowly becomes weak, making it impossible to fuse the wire.	<p>Usually the welding gun lens is damaged, including but not limited to the protective mirror, focus, collimation, reflection, any one or more of them may cause this situation. Replace the protective lens and look at the focus, then check the reflection and collimation, and replace the damaged lens. About the copper nozzle at the spark may be the focus problem, should be ruled out first. Also check if the laser fibre head part is dirty or damaged.</p>
Motor does not swing	Spot for a point	<p>First, whether the software part is set correctly</p> <p>Settings - scanning correction: 1.0 or 1.33</p> <p>Process - scanning width: greater than 0</p> <p>Home-Indication red light: line</p> <p>Second, the hardware part of the check (first installation)</p> <p>1. The power supply of swing motor is 15V power</p>

		<p>supply, we should first measure whether the power supply of 15V switching power supply is normal.</p> <p>2. Check whether the 15V of the main control board-driver interface is normal , 15V is divided into positive and negative , wrong wiring will also make the motor does not work.</p>
<p>Motor swing abnormality</p>	<p>① after power on the welding head tail motor whistling / swinging red light abnormal / heat / can not adjust the swing width</p> <p>② Directly burn the lens, the sealing ring and focusing lens burned at the same time.</p>	<p>The driver in the control box controls the motor swing, connected by the motor cable, when there is a signal error (poor contact with the motor cable, disconnection), external interference, or the driver does not match the motor, the problem of ① may occur.</p> <p>If the problem of ② occurs, it is recommended to check the surrounding sources of interference, if there is no source of interference, it may be the motor cable failure, directly replace the motor cable can be.</p>

For more problems, please refer to the page of We Chat applet [Problem Handling].



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